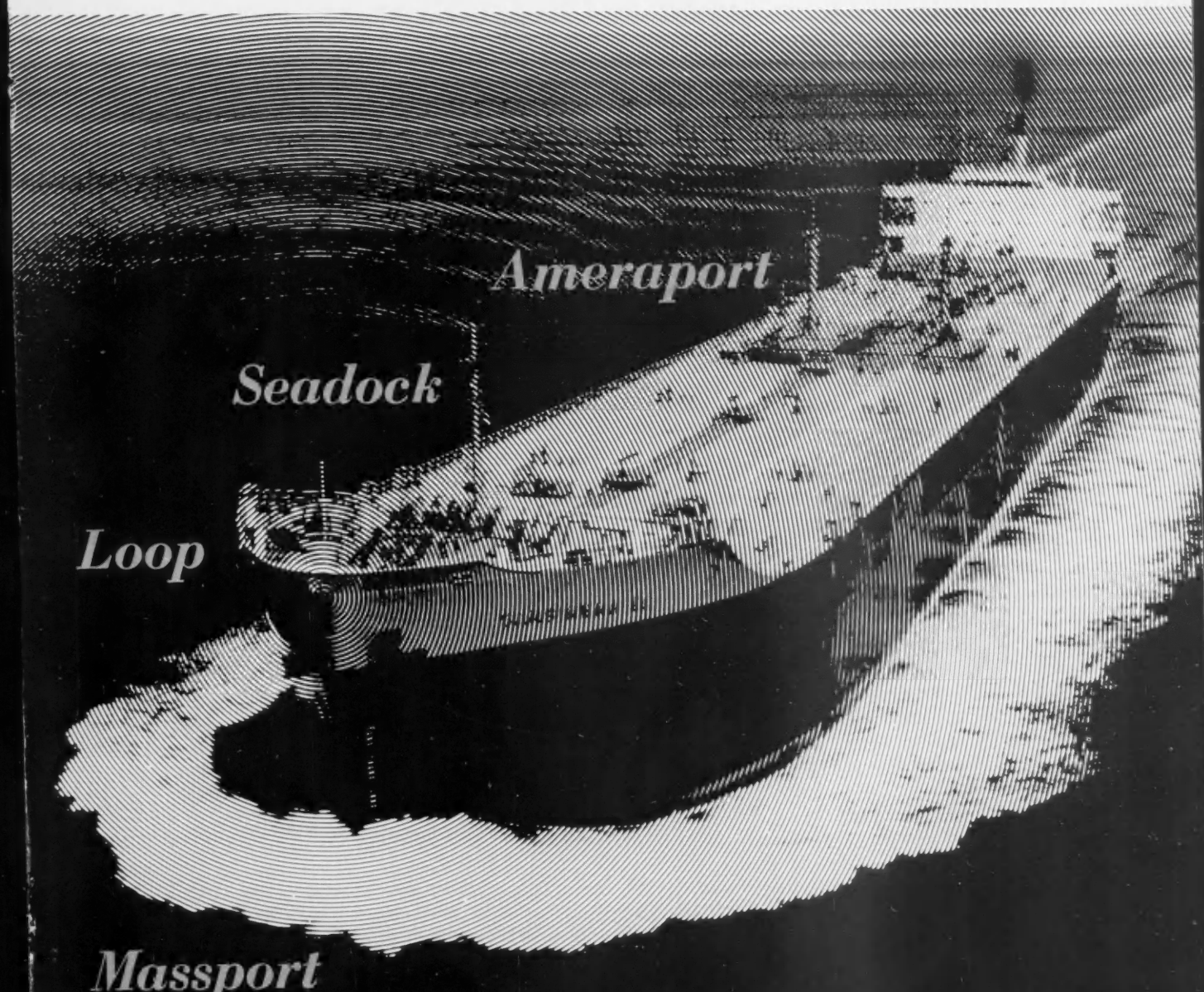
MARCH 3, 1975

Commerce Today



New U.S. Ports Of Call For Supertankers?

FROM THE
SECRETARY

The Need For Offshore Drilling

Why drill for oil and gas on the Outer Continental Shelf?

Because the indications are that this area represents a vast treasure-trove of energy, although the full extent of its wealth must be proved by exploratory drilling.

If the indicated potential is borne out, its further development through leasing by the Federal Government will translate into thousands of jobs for American workers. This also will help stem the outflow of billions of dollars from the U.S. to help pay for foreign produced oil.

Continued aggressive development of this enormous reservoir of energy is a key provision of President Ford's program to move our country toward energy independence. We must not only reduce wasteful consumption through strong conservation measures; we must also pursue a vigorous program to increase domestic energy production.

The full extent of the oil and gas reserves that lie in the Outer Continental Shelf is unknown. But studies of the geological formations indicate the vast potential. The U.S. Geological Survey estimates that there are from 65 to 130 billion barrels of recoverable crude oil and natural gas liquids from the shoreline to a water depth of 200 meters (656 feet) off the coast of the lower 48 states and Alaska. The amount of natural gas is estimated at 395 to 790 trillion cubic feet. These estimates of undiscovered resources are revised as new data are acquired in exploratory drilling.

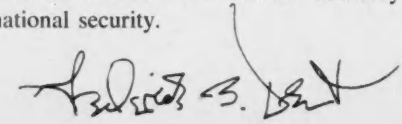
The President's program anticipates that increased leasing in the Atlantic, the Pacific, the Gulf of Mexico and offshore Alaska could add 1.5 million barrels of oil daily to domestic production and increased supplies of natural gas by 1985.

Since the offshore development program began in 1954, 90 percent of the leased acreage has been in the Gulf of Mexico. Some 2,200 tracts, comprising 10 million acres, are under lease there; many have proved highly productive of both oil and gas.

The need for additional production grows more acute every day. Crude oil production has been declining since 1970. Natural gas consumption has been exceeding new discoveries for the past six years. Coal production is still at 1940's levels. If we fail to move forward with President Ford's program to increase both production and conservation of energy, our dependence on foreign oil sources could grow from the current 35 percent to 50 percent by 1985.

But at the same time we increase offshore resource development, we must insure that the coastal states are assisted in planning for this new activity. This is why the Department of Commerce is seeking in Fiscal Year 1975 a $3 million supplemental appropriation for the Coastal Zone Management Program of the National Oceanic and Atmospheric Administration. This program assists coastal states prepare plans for the results of oil and gas lease development off their coasts.

Taking appropriate precautions to insure the safety of our precious coastal environment, let us move forward to tap the vast offshore reservoir of energy wealth for the benefit of our economy and our national security.



Commerce Today

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Part of federal activities are not included in the standard versions of the government's budget; they should not be ignored, however, since they have a substantial impact on financial and money markets and on the economy.

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5 Deepwater Ports Could Cut Import Costs, Relieve Congested U.S. Sealanes

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U.S., USSR officials urge expansion in trade, tourism—Bargaining stage set in GATT trade negotiations—Final results from U.S. exhibitions abroad—Economic trends in Italy, Israel, Vietnam, Netherlands, Pakistan—EEC harmonizing product standards—International Business Reports reviewed—Calendar for World Traders—Commerce Department worldwide trade promotion schedule—Licensing, sales opportunities from around the world.

COVER: *Supertankers, which cannot now operate in this country's shallow ports, may soon be able to offload their cargo at deepwater ports miles offshore. Seadock, LOOP (Louisiana Offshore Oil Port), and Ameraport have been proposed for the Gulf of Mexico, while Massport would be off the New England coast.* *Story is on page 5.*

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Some 'Non-Budget' Federal Expenditures Have Significant Impact On U.S. Economy

Economic Highlights is prepared by James L. Pate, Assistant Secretary of Commerce for Economic Affairs.

The federal budget presents the President's financial plan for achieving economic, social, and political objectives. Several forms of the budget are used to provide different perspectives. The National Income Account (NIA) figures and the full employment budget are generally considered the most useful measures of the government's fiscal activities and the impact of those activities on the economy. The unified budget, however, is the concept most frequently recognized by the general public.

Several fiscal activities of the government are not included in any of the commonly used forms of the budget even though these activities result in spending similar to budget outlays and they have an important impact on the economy. These special activities fall into the following categories: operations of the off-budget agencies, government-sponsored enterprises, federal credit-guarantee programs, and "tax expenditures."

Tax expenditures result from certain provisions of the tax code that are designed to achieve economic and social objectives. These provisions result in tax losses and are an alternative to direct budget outlays for achieving policy objectives. For example, the investment tax credit provides an incentive for business investment and results in lower taxes for business—or a tax expenditure.

The off-budget agencies are wholly owned and operated by the Federal Government but their expenditures are excluded from the budget by law. Their fiscal activities are not reflected in either unified budget outlays or in the surplus or deficit. Since their activities are largely financial in character and do not represent current production of goods and services, they also are not included in the NIA figures. The debt incurred by these agencies to finance their activities is included in the gross federal debt but it is not subject to the statutory debt limitation.

For the most part, the fiscal activities of the off-budget agencies have the same kind of impact on the economy as similar activities that are included in the budget. In fact, some of the off-budget agencies, such as the Export-Import Bank and the Postal Service, formerly were included in the budget and their net fiscal operations were reflected in the budget surplus or deficit.

The fiscal activities of government-sponsored agencies are also excluded from the budget totals but this has not always been the case. Before the unified budget was developed in 1969, government-sponsored enterprise activities were included in the consolidated cash budget. The cash budget was broader than the Administrative budget, the concept that corresponds closely to the federal funds part (i.e., excluding trust funds) of the presently used unified budget.

The government-sponsored enterprises were established and chartered to perform specialized services and functions that are in the national interest. Their loans are similar, in type and in their impact on the economy, to those included in the unified budget.

With the major exception of the Postal Service, the expenditures of the off-budget agencies and the government-sponsored enterprises are for loan programs that are designed to direct economic resources toward specific purposes. Government borrowing from the public to finance the activities of these two groups of agencies has a significant impact on the financial markets and on the economy. If their fiscal activities are not considered along with the unified budget totals, we obtain an incomplete picture of the government's economic policy and cannot adequately assess the total fiscal impact of government actions on the credit markets and in such sectors as housing, agriculture, and education.

The table below on this page shows the growth of outlays since 1972 for the off-budget agencies and the government-sponsored enterprises. In part, the growth of off-budget agency outlays is due to the larger number of agencies that have been excluded by law from the budget. The credit activities of the recently-established Federal Financing Bank account for most of the increased off-budget outlays. In fiscal 1972, unified budget outlays were about $232 billion, off-budget outlays were only $0.1 billion (for the Export-Import Bank), and the combined outlays of the off-budget and government-sponsored enterprises were less than $5 billion. Since 1972, the number of off-budget agencies has increased and their total outlays plus those for the government-sponsored enterprises are estimated to be $28.5 billion or 9.1 percent of unified budget outlays in fiscal year 1975 and about $18 billion or 5.1 percent of budget outlays in 1976.

The largest part of the government's borrowing from the public stems from budget deficits. The demand and impact of the government on the credit markets and the economy in general is understated, however, if the borrowing needs of the off-budget agencies, government-sponsored agencies, and federally-guaranteed loans are ignored. Some of the borrowing activities excluded from the budget, of course, do not necessarily add to total credit demands since some federal credit may

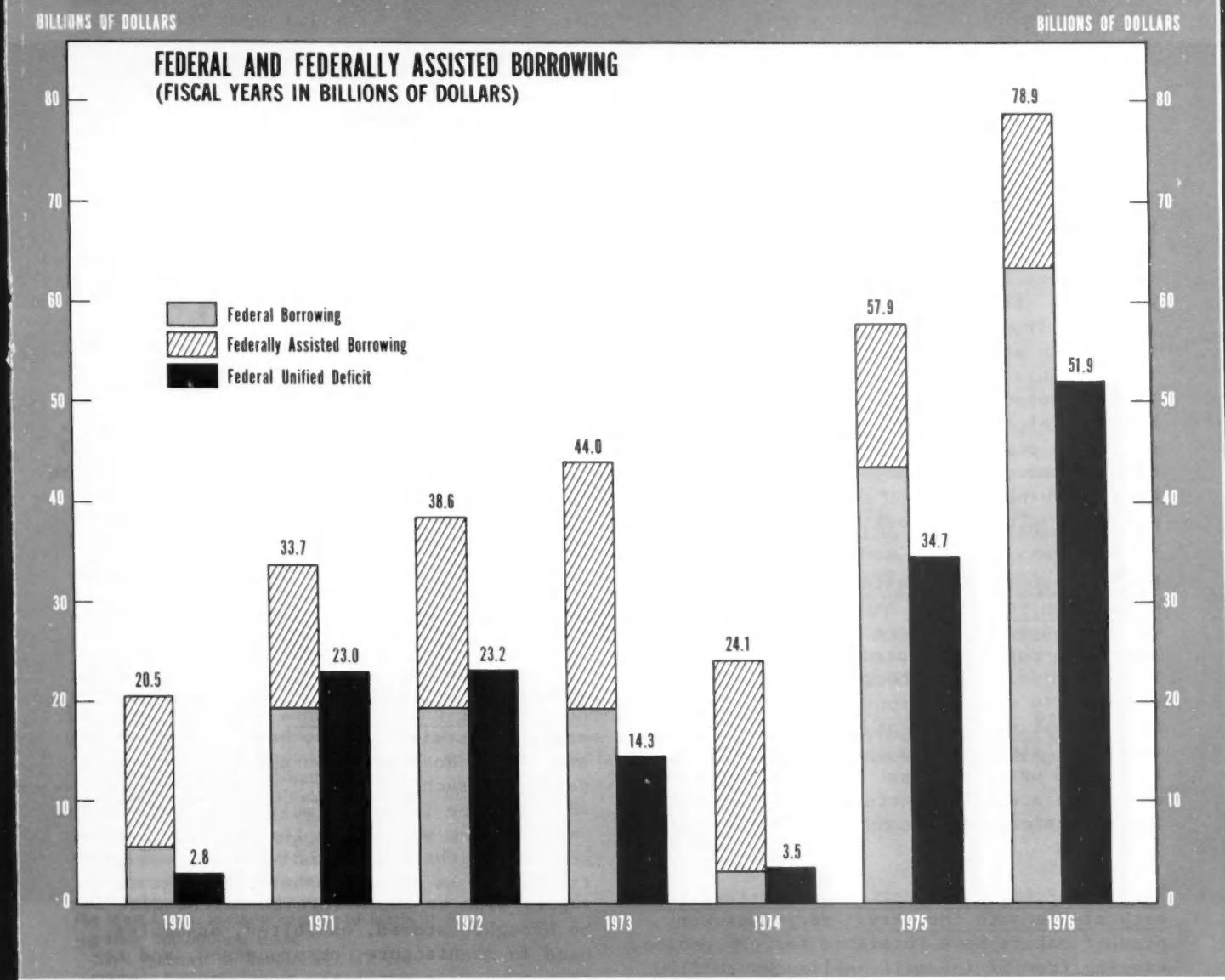
Unified Budget, Plus Other Federal Outlays

Outlays (Billions of dollars)

Fiscal year	Unified budget	Off-budget federal agencies	Government-sponsored enterprises
1972	231.9	0.1	4.1
1973	246.5	0.6	10.8
1974	268.4	2.7	14.6
1975 est.	313.4	13.9	14.5
1976	349.4	10.6	7.2

* Less than $50 million

Source: Budget of the U.S. Government, Fiscal Year 1976



serve as a substitute for private loans.

The total requirements for government borrowing from the public to finance the budget and off-budget deficits, after adjusting for the minor means of financing other than borrowing (e.g., the use of cash balances), is $43.5 billion in fiscal 1975 and $63.5 billion in 1976. In 1974, such borrowing was only $3 billion.

In addition to these amounts, the borrowing of government-sponsored enterprises is expected to require $13.6 billion and $7.7 billion for 1975 and 1976, respectively; federally-guaranteed borrowing is expected to be $.8 billion and $7.7 billion. Total federal and federally-assisted borrowing from the public in 1975 and 1976, therefore, is expected to be almost $58 billion and $79 billion. In fiscal year 1974, federal and federally-assisted borrowing was $24 billion. Even during 1971-73 when the budget deficits were fairly large, the borrowing was small compared to the financing required in 1975 and 1976.

The contrast between the government's borrowing needs in 1975 and 1976 and earlier years highlights the precarious situation that faces our credit markets during the next 16 months. The danger of large government demands on the credit markets lies in cutting off needed funds for business investment, housing and state and local government expenditures. Thus, this hazard is underscored by the very large federal borrowing needs in the next 16 months (the remainder of fiscal 1975 and 1976) relative to that of the recent past.

Tax expenditures affect the private economy in ways that are usually accomplished by direct expenditures. They are indirectly reflected in budget receipts because receipts are lower by some amount due to the special exemptions, deductions, credits, exclusions, preferential rates of tax or deferral of tax liability permitted under the Internal Revenue Code. Some of the major tax expenditures are the deductibility of mortgage interest and property taxes on owner-occupied homes, deductibility of charitable contributions, the investment tax credit, exclusion of interest on state and local debt, and capital gains. Total tax expenditures in 1976 are estimated to be $91.8 billion, $21.0 billion for corporations and $70.8 billion for individuals. This is about 25 percent of estimated 1976 budget outlays. The elimination of these negative taxes would not necessarily reduce the budget deficit by a comparable amount, since some features of the normal income tax would be changed or expenditures might be increased and the composition and level of economic activity would be different. The budget deficit, however, is probably higher than would otherwise be the case if there were no "tax expenditures." Therefore, tax expenditures should be periodically reviewed and required to stand the test of scrutiny that should be required of any government expenditure.

Newsmemo

Newspapers are on a weight-size diet for their economic well-being. Newsprint prices now average $270 per ton, up from $175 in mid-1973. So the major publishers are shifting from 60-inch wide newsprint rolls to 55-inch and reducing page sizes accordingly. This shift follows one in weight from 32 pound stock to 30 pound. The combination of changes can bring 10-12 percent saving in paper. The Los Angeles Times, for one, in reducing its page size, is estimating a saving of 18,000 tons of newsprint per year valued at close to $5 million.

Many now wonder why wastepaper is apparently going begging. It is because 70-80 percent of wastepaper that is recycled goes into construction paper and board. Demand there has been especially weak because of the general slowdown in construction. A side effect of this situation: wastepaper that does not enter the reprocessing cycle is adding to the solid waste disposal burden. And demand and price are not expected to improve significantly before the second half of 1975.

The term "rebate" is not the exclusive property of the auto industry. Many consumer product makers have initiated factory rebates ranging from $2 in small appliances to $100 in TVs. Some retailers are starting their own rebate programs on top of the factory rebates. Although some retailers prefer price reductions over rebates, manufacturers feel retailers would not be unanimous in reducing retail prices, and price reductions would lock the industry into a lower price structure. Also, manufacturers believe rebates have a greater impact in the area of public relations, building consumer confidence, and advertising tie-ins.

Consumers and the fishery product processors will benefit by a new agreement between the Commerce Department and the Food and Drug Administration. The FDA, which works to insure that foods are wholesome and honestly labeled, will now get assistance from Commerce's National Marine Fisheries Service, which has a voluntary program of plant and product inspection for fisheries. The upshot will be to extend fishery product inspections to more products and installations.

Movies are better than ever. Remember that tag line? In 1974 it applied to the box office story. Total receipts of $1.9 billion topped the previous U.S. high of $1.7 billion set all the way back in pre-TV 1947. The year's gain was 27 percent over the $1.5 billion of 1973. About 8 to 9 percent of the gain represents higher ticket prices. The industry attributes the 1974 performance to consumer inclinations to seek relatively lower cost entertainment during an economic slump, and to uncertainties over gasoline availability early in 1974 that kept many people from taking weekend trips.

Omaha, deep in the U.S. heartland, has the newest Foreign-Trade Zone. But the sense of surprise is missing now, because Kansas City and Little Rock have won approval in recent years for such zones at U.S. ports of entry--which can be inland as well as on our coasts. Omaha's zone will be in the municipal dock complex on the Missouri River. A foreign-trade zone is an area under U.S. Customs supervision to which foreign merchandise may be brought, stored, exhibited, assembled, used in manufacture, or processed, and remain duty free until the merchandise enters U.S. Customs territory from the zone. Domestic goods moved into a zone for export are considered exported, for purposes of excise tax rebates, upon zone entry.

Another avenue for widened U.S. commercial links abroad opens with the establishment of the magazine Modern Medicine-Middle East. It is a combined venture of Johnston Int'l Publishing of New York, which already publishes the major business journal Alam Attijarat for a Middle East audience, and Modern Medicine Publications of Minneapolis, which has nine editions of its medical-dental journals reaching professionals on five continents. The new publication, due to bow in October, will be sent to every practicing doctor in 14 nations in the Middle East and to selected doctors in Iran and Egypt. Editor is Dr. Raja Khoury of the American University of Beirut.

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March 3, 1975

Deepwater Ports Seen Cutting Oil Import Costs, Congestion

Supertanker sailors may go a long time between landfalls if recently-passed legislation results in sprinkling a network of new ports 20 or more miles off the U.S. coasts. But the rest of us may be a lot better off.

Despite the effort to decrease U.S. reliance on foreign energy sources, there is no reason to expect that this country will cease to import substantial amounts of foreign oil.

Unfortunately, the United States does not now have ports deep enough to accommodate the supertankers that are carrying the bulk of the world's oil. The 35-to-50-foot deep U.S. harbors and channels, suitable for post World-War II cargo ships of 40,000 to 80,000-deadweight tons, are largely inaccessible to today's 200,000 to 300,000 very large crude carriers (VLCC's) and even larger ultra-large crude carriers (ULCC's) which require water depths of 90 feet or more. The deepest U.S. ports, which are located on the West Coast, are now capable of berthing only 100,000-ton ships.

This inability to handle VLCC's currently precludes the use of approximately 60 percent of the world's fleet capacity. As a result, supertankers must transfer U.S.-bound petroleum into smaller ships for delivery into American harbors or the oil must be transhipped from foreign ports in the Caribbean in conventional tankers.

U.S. stands alone

At present, the United States is the only major oil importing nation which cannot accommodate supertankers. Both France and the Netherlands have undertaken dredging and enlargement programs which give them an advantage over this country in the handling of these giant ships. Supertanker ports have also been built in Japan, Ireland, and Italy, among others.

The way is now clear to change this situation, however, as on January 4 President Ford signed into law the "Deepwater Port Act of 1974," which will allow the building of the first U.S. port facilities capable of handling VLCC's.

If no hitches develop, the first such facility is expected to be completed by 1977.

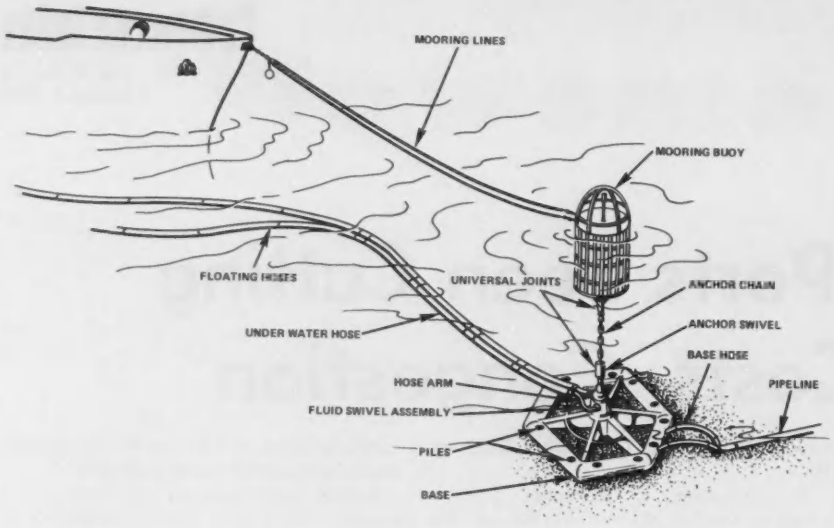
By definition, a deepwater port is a facility located offshore and beyond the territorial waters of the United States, that is used for off-loading crude oil from tankers. It is situated in water of sufficient depth (100 feet or more) to accommodate most of the world's supertankers.

Deepwater ports will be located away from normal shipping centers, and they will have only one function; the transfer of crude oil. Each hose connection at a deepwater port will effectively permit the transfer of oil equivalent to approximately four connections at conventional terminals. This specialized operation at dedicated facilities, run in an efficient manner, should reduce the risk of pollution.

Vessel operations are specified in a manner which will prevent pollution by eliminating the cause. Ship collisions are avoided by requiring control of movement from a central location, and by eliminating the "meeting" situation through specification of traffic corridors, which will involve only minimal delays. With a throughput of three million barrels per day, a deepwater port would be servicing approximately 730 ship calls per year.

Several of these ports are tentatively planned in the United States with the first ones expected to be built approximately

CREATE ELBOW ROOM—*Sealanes serving U.S. ports should become less crowded if supertankers such as the U.S.-owned* Manhattan, *above, start offloading their cargoes at deepwater ports many miles out to sea. It would take as many as half-a-dozen conventional tankers to handle the capacity of a single supertanker.*



HOW IT'S DONE—*The single anchor leg mooring, shown above, one form of the single point mooring to be employed by the deepwater ports, allows tankers to swing freely about under the effect of wind and current while discharging oil.*

20 or 30 miles offshore in the Gulf of Mexico, where extensive offshore activity is already under way.

The only non-Gulf site currently under strong consideration seems to be off the coast of Massachusetts.

Potential applicants for licenses to run these facilities are likely to be consortia of oil firms, or perhaps a state port authority.

Adjacent coastal states have the power to veto such applications for environmental or other reasons. States can be designated as 'adjacent coastal states' by being physically closest to the proposed site, or by applying for such designation from the Secretary of Transportation.

The facilities will probably consist of platforms housing pumping stations, control rooms, and crew accommodations. Surrounding the platforms will be single-point mooring buoys (SPM's). Underwater pipelines will connect the buoys to the pumping platforms, which will be linked to on-shore tank farms by one or more 36-48-inch steel pipes buried in the seabed.

In operation, a VLCC will tie up to one of the buoys, hook up to a floating cargo hose, and pump its cargo of crude through the underwater pipeline to the pumping platform and then ashore to the tank farm and refineries. The cargo hoses are attached to the buoys by swivel connections which allow the tanker to "weathervane" 360 degrees to face into the wind, waves and current while continuing to offload.

The economic and environmental advantages of transporting energy, in the form of oil, through these offshore ports are significant. Aside from the economies of scale, a very large crude carrier has two additional advantages over smaller tankers. Since it operates with an even smaller crew than the average tanker, the operating cost per ton of cargo is substantially reduced.

Also, because construction is modular and very highly mechanized, the vessel uses less steel per ton of cargo and hence the unit cost per ton is also reduced.

Overall, importing oil by supertankers could reduce shipping costs by as much as 40 percent over conventional carriers. This could result in an annual reduction in this country's energy costs of $1.5 billion or more per year, which would have a direct impact on the economy and help in the fight against inflation.

The indirect economic benefits are equally important, with many new jobs being created in areas where superports will be built. There is also expected to be considerable capital investment in those areas.

Uncluttered sealanes

In addition to their dollar savings in transport costs, supertankers can also effect great environmental savings. Their use will result in less crowded sealanes serving U.S. ports and, consequently, less chance of spillage either from collision or from ships going aground. Without deepwater ports, the risks of groundings or collisions would increase, as ever larger numbers of smaller tankers entered already-crowded ports. For instance, a 400,000-ton supertanker would require as many as six 70,000-tonners to deliver its three million barrel cargo.

Supertankers also reduce the chance of spillage during ship-to-shore pumping operations because they require fewer transfer operations. In the event of a spill, there will be considerably less impact 20 to 30 miles off-shore than if the spill were in the immediate vicinity of the estuaries, beaches, and wetlands of the coastal area.

The use of supertankers could result in as much as a tenfold reduction in the quantity of oil spilled as compared to what might happen if this country continues to import oil with conventional size tankers, some authorities estimate.

Tightly regulated

Because of their unique configurations and remote locations, and to insure that the nation will reap the economic and environmental benefits predicted, stringent regulations govern both the construction and operation of deepwater ports. These federal regulations provide for the protection of the marine and coastal environment by guarding against any adverse impact which might occur due to the development of these ports. They also protect the interests of the country and the adjacent coastal states in the location, construction and operation of the ports.

Major areas covered by the regulations include:

- Environmental data to be provided with application for a license to operate a deepwater port;
- Oil spill prevention measures and operator clean-up capabilities;
- Operational constraints to be followed;
- Personal and financial data required of a prospective deepwater port operator, and
- Liabilities of operators during the construction and ultimate operation of the facilities.

Under the Deepwater Port Act, the Secretary of Transportation has been assigned the responsibility for promulgating regulations and standards under which a port may be built and operated. The Secretary has established an Office of Deepwater Ports to coordinate the activities of the department and other government agencies in carrying out the provisions of the law. The Coast Guard, an agency of the Transportation Department and the nation's maritime law enforcement arm, is playing a major role in the development and supervision of deepwater ports.

In addition to the strict regulations under which a port may be built and operated, the Deepwater Port Act of 1974 provides for the establishment of a deepwater port liability fund. This fund, initially established at $100 million, will be used to cover the costs of clean-up and damages in the event of a spill.

The fund will be supported through a two-cent-per barrel deepwater port use charge. Additionally, the port operator or the owner of a vessel using the port will be liable for clean-up and damage costs of up to $50 million and $20 million respectively.

'Welcome-Plus' To Foreign Buyers

The businessman was looking for logging equipment, and was ready to make an overseas trip, possibly to the United States, to seek out suppliers. But he needed much more information to make his trip practical . . . had he come to the right place?

Certainly! responded the official across the desk in the commercial section of the U.S. Embassy, and proceeded to prove it in the hours and days ahead. He gave the prospective buyer a comprehensive, up-to-date list of American suppliers, assisted with advice on an itinerary and even started an appointment process.

The man followed through and met with appropriate U.S. manufacturers and financing agencies. Pending final credit arrangements, this businessman has since placed orders totaling $160,000 with U.S. suppliers and is negotiating a $5.6 million joint venture for a plywood plant.

A group of 32 foreign buyers interested in do-it-yourself and home improvement products had a similar experience. They were prompted by such proffered assistance from the U.S. Foreign Service to attend the National Decorating Products Show in Chicago last year. Arrangements were made by the U.S. Commerce Department, working with the Foreign Service, for trade association officials and interested exhibitors to brief the group. Members estimate that their resulting purchases within the next 12 months will reach $2 million.

These situations reflect a closely coordinated effort of the Departments of Commerce and State to encourage purchasers abroad to visit the United States and to assist them in buying while they are here. The main thrust of this joint effort, known as the Foreign Buyer Program, is the matching-up of the needs of prospective customers with the most appropriate U.S. suppliers during business trips to the United States.

The foreign visitor thus does not have to go through the industrial "yellow pages" for what he wants, or search among hundreds of trade show exhibitors seeking products for distribution back home. He lets his business needs be known to Foreign Service commercial officers at the nearest Embassy or Consulate abroad.

Currently, 165 diplomatic and consular posts are aiding business trips to the United States, assuring visitors assistance while in this country. To spread the word on such help, the U.S. Information Agency has produced a 13-minute film explaining the services, for use by Embassies and Consulates worldwide.

The Foreign Buyer Program, scarcely a year old, already has assisted about 6,000 foreign visitors who have attended U.S. trade shows that welcome buyers from overseas. Some $44 million in U.S. export sales are projected as a result. In addition, 148 agent/distributor agreements have been completed, 705 are pending; 7 joint venture/licensing agreements have been completed and 68 are pending.

These statistics cover only one portion of the three-part program—assistance to international visitors at U.S. trade shows. Specialized foreign buyer groups and individual foreign buyers also may obtain stepped-up assistance.

At U.S. trade shows

A number of domestic trade shows meeting certain criteria—primarily, their products and services must have a high

FOREIGN BUYER IN CHICAGO—*M. I. Mora (right) of the Ministry of Information for Nigeria's North Central State talks with Donald T. Jones, Commerce's project director for Print '74. Government printer Mora was interested in both equipment and technology.*

COSMOPOLITAN CROWD—*Hundreds of buyers from abroad were among the visitors attending Print '74, the International Graphic Arts Exposition in Chicago, one of the domestic shows chosen last year for support under the Foreign Buyer Program.*

sales potential in a large number of foreign markets—are chosen for support under the program. Exhibitor lists, with company name, address, and products for export, are provided to the U.S. posts abroad in advance of the show. Similar lists of foreign buyers expecting to attend are provided to the U.S. exhibitors. At these shows, each international visitor—especially one who has been identified by the Foreign Service officer as having specific business interests—is welcomed by a Commerce official, and to the extent possible, is assisted in establishing business discussions with appropriate U.S. exhibitors. Often visits to plants are arranged so that the buyer may see special equipment in operation. An International Businessmen's Center, sponsored jointly by Commerce and the show producer, provides a meeting place for the buyer and the U.S. exhibitor interested in selling abroad.

To illustrate what can be achieved under the program, consider the International Graphic Arts Exposition (PRINT '74) in Chicago last November. About 2,800 foreign buyers were assisted by Foreign Buyer staff and $18 million in export sales at the show have been reported to Commerce by exhibitors. This figure represents reporting by only 48 percent of the 92 show exhibitors participating in the program. In addition, 19 firm agent/distributor agreements have been concluded, with 169 pending.

Specialized buying groups

Emphasizing a second focus within the program, U.S. Foreign Service officers encourage formation of specialized buying groups to visit the United States—with specific itineraries pre-arranged to match the business interest of the groups' members. Itineraries normally include plant visits and business appointments with selected U.S. suppliers. Arrangements can be made for both industrial products and consumer goods buyer groups. A Commerce escort officer is assigned where justified.

Recently, a consumer products buying group of 10 businessmen was met in New York by a Commerce project officer who worked with the group at their hotel arranging for appointments with appropriate U.S. suppliers. On-the-spot purchases were made, and the group expects to conclude long-term distribution arrangements with new U.S. suppliers.

Individual buyers

Still another focus is that on individual foreign buyers. Since the inception of the program, requests transmitted to the U.S. from Foreign Service posts for assistance to individual foreign buyers have been steadily increasing. Currently they run two a day, from 50 countries ranging from Afghanistan to Zaire. With the assistance of the Commerce District Offices, trade associations, and other organizations, individual U.S. suppliers' interests are identified, and once the buyer arrives, specific appointments are made for him with interested parties. More than 200 such visitors have been assisted since the program began.

Product interests of individual buyers have included fire engines, roof bolts, water meters, chain saws, raw salt, steam generators, and used cars for a taxi fleet. The value of purchases has ranged from several thousand to several million dollars. For each buyer, Commerce assigns a Washington official as a point of contact in the United States.

Not long ago, at the request of a Foreign Service post, a list of U.S. suppliers of mining equipment was provided for a foreign businessman. Upon receiving the list, the prospective buyer left immediately for the United States, even though he had not intended to come until some time in the future. Appointments with the U.S. suppliers resulted in an immediate $40,000 purchase and anticipated purchases totaling $500,000.

For recession-hit industries

During the next several months, the Foreign Buyer Program will be focusing not only on U.S. products with high export potential, but also on recession-hit industries that are suffering severe losses in domestic markets. These include construction, electronics, and several other industries.

Two domestic trade shows this spring will have the program's support: the Plant Engineering and Maintenance Show in Chicago May 5-8, and the National Computer Conference in Anaheim, May 19-23. For the plant engineering show, 5,100 brochures have been requested for distribution by the 80 U.S. Embassies and Consulates promoting attendance; for the computer show, almost 7,000 have been requested by the 76 participating posts. Interest has been expressed from market areas both large and small, on every continent.

Additional shows selected for promotion this year are: National Hardware Show, Chicago, Aug. 26-28; 6th Annual National Building Show, Chicago, Oct. 21-23; International Energy Engineering Exposition & Congress, Chicago, Nov. 3-6; and International Hotel & Motel Exposition, New York, Nov. 10-13.

Domestic shows selected for promotion by the Foreign Buyer Program in the first half of 1976 include those displaying U.S. products in internationally important industries such as energy, food processing and electronics. The schedule is: Jan. 9-14, Transworld Housewares & Variety Exhibition, Chicago; Jan. 18-21, National Exposition for Food Processors, San Francisco; Feb. 5-8, National Sporting Goods Association—47th Annual Convention and Show, Chicago; Apr. 5-8, Design Engineering Show, Chicago; May 2-5, Super Market Institute—Convention Exposition, Dallas; May 11-13, Electro-'76, Boston; and May 16-22, International Petroleum Exposition, Tulsa.

For further details, call or write Joseph Miller, Director, Foreign Buyer Staff, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230; telephone, 202-967-2256.

Jobs, Salary, Credit, Legal Status All In Focus Of Women's 'Year'

This is International Women's Year—time for a *Commerce Today* focus on the part women play in the economic and business life of the United States.

The UN Commission on the Status of Women called upon the United Nations to declare 1975 a year for women, as it had previously set aside years for human rights, population, international cooperation, and other subjects.

Why was International Women's Year proposed? The Commission felt that such a step would mobilize action on behalf of women throughout the world. Emphasis would vary in different countries. In developing countries, there was concern for the basic needs of rural women, for such things as water supply and sanitation in the home, health clinics within walking distance, schooling and literacy. For women in developed countries, there was concern over obtaining access to policy-making positions, equal pay for work of equal value and other more professional goals.

In the United States, the status of women has been increasing in many areas: education, credit-worthiness, home ownership, as heads of families. But there is still felt to be much room for improvement in job advancement and salary level.

Advertising copywriters have long aimed their promotions at women, knowing that except for major items like automobiles and, perhaps, television sets, women make most of the purchasing decisions for the family. However, today so many women are supporting themselves and sometimes their families—some 7.7 million of them live alone or with nonrelatives and 6.6 million are family heads—that they are a large market in themselves. Census Bureau figures indicate that the number of female family heads increased as much during 1970 to 1973—from 5.6 million to 6.6 million—as it did during the entire decade of the 1960s.

No longer limited to merely influencing her family's choice of purchase, the American woman is now a conspicuous consumer in her own right.

She has gone from 20 percent of the work force in 1900 to 40 percent in 1970, according to Commerce's Bureau of the Census. Her average annual salary, however, is $5,700—only 59 percent of the average man's salary (1971 figures). And no less an authority than the President's Council of Economic Advisers has estimated that women generally earn about 20 percent less than men for comparable work. In fact, according to the Bureau of Labor Statistics' *Monthly Labor Review*, "Men earned more than women in every occupation, except public kindergarten teachers."

But far as the American working woman seems to have come, she is still in danger of losing her all-too-recent progress: whenever a company must cut back its staff, the last hired is usually the first fired. And the last hired is apt to be a woman, since new regulations requiring companies and other entities doing business with the Federal Government to hire and advance more women and minorities have been put into force only recently.

For Further Information

Further information about International Women's Year, women's legal rights, and statistics on jobs, education, salaries and households can be obtained by writing:

United States Center for International Women's Year, Meridian House International, 1630 Crescent Place, NW., Washington, D.C. 20009.

U.S. Commission on Civil Rights, Women's Rights Unit, Washington, D.C. 20425.

The Women's Bureau, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210.

(Census Bureau statistics are extracted and used by the Women's Bureau in preparing its studies.)

Citizens' Advisory Council on the Status of Women, U.S. Department of Labor, Room 1336, Washington, D.C. 20210.

Women's education

She has been obtaining a college education in greater numbers than ever before: in 1950, only 7 percent of women aged 18-24 were in college; in 1970, 20 percent of women in this age group were enrolled. Furthermore, the percentage of female college students in the 25-34 year age bracket has increased from 5 percent of students in 1947 to 18 percent in 1973, according to the Census Bureau.

In 1960, male undergraduates outnumbered females almost two-to-one. By 1971, the ratio had shrunk to four-to-three. Male enrollment had doubled, but female enrollment had nearly tripled. Women have a financial incentive to attend college: the median income of female college graduates in 1971 was $9,162—more than double that of women who had completed only eight years of school and over 50 percent more than that of a high school graduate.

Women in business

In 1973, *Fortune* magazine spotlighted "The Ten Highest-Ranking Women in Big Business." The magazine surveyed the 1,220 companies in its directory of large American corporations that are required by the Securities and Exchange Commission to provide information about salaries and other payments to officers and directors. Of the 6,500 officers and directors listed among the companies' top three earning over $30,000, only 11 were women and nine of these had worked into their jobs through family connections, marriage, or the fact that they had founded their own companies.

A *Harvard Business Review* survey states that in the 20 major U.S. corporations employing some two million people, women represent less than 1 percent of all the officials, managers and professionals.

Census Bureau figures show how low women's proportion of some of the better-

WOMEN'S WORK—*As their educational level increases and they plan to spend more years in the work force, women have begun choosing nontraditional careers, such as chemist.*

paying jobs is: they account for about 1 percent of engineers, 4 percent of lawyers, 10 percent of chemists and 12 percent of physicians.

Settlements in recent years under the Federal Equal Pay Law have been compensating women for previous discrimination and have prompted employers to take care to avoid discrimination in the future. In fiscal year 1970, more than $6 million was found due to nearly 18,000 employees, almost all of whom were women. In fiscal 1971, a total of $14,873,000 was found due to nearly 30,000 employees, almost all of whom were women.

American Telephone & Telegraph was forced to pay $15 million in back pay to some 15,000 employees who had been discriminated against; $7.7 million of this was paid to 3,000 women.

In 1970, in two out of five families with the husband and wife both present, both worked. Among black families with husband and wife both present, both worked in more than two-thirds of the families.

Although the number of both black and white families headed by women increased in recent years, in the case of black families, this increase helped to cause a decline in median income in relation to whites. In 1970, median black family income was 61 percent of white; by 1973, it had dropped to 58 percent. This is because black female family heads earn less than black males or white females, and also because the number of two-earner families has decreased.

While the American woman's increased participation in the work force and increasing salary mean she will have more discretionary income, her growing role in family planning and her lower birth expectations will affect future demand for all goods and services.

A Census Bureau nationwide survey of wives 18 to 39 years old has indicated a major drop in the total number of children they expect to have in their lifetimes. The number in the 1974 survey was 2.55 per woman. As recently as 1967 the number expected was 3.1 per woman.

The difference between the 1974 expectations and those obtained in a 1973 survey (2.64 children per woman) would result in about three million fewer births, according to Census Bureau population officials, if the survey results were also applied to women presently single.

Survey results for 1973 and 1974 also indicated that women aged 18 to 24 expected to have fewer children than those 25 to 39.

Women and finance

Recently-enacted laws have made it illegal for credit card companies or banks and other lending institutions to discriminate against women.

In July 1974 this magazine carried an editorial by Secretary of Commerce Frederick B. Dent advocating equal credit status for women. At that time a bill to that effect had been passed by the Senate and a similar one was pending in the House. In October 1974 Public Law 93-495 was enacted. Among other provisions, it prohibits discrimination "against any applicant on the basis of sex or marital status with respect to any aspect of a credit transaction."

In early 1974, the Small Business Act was amended by P.L. 93-237, prohibiting the Small Business Administration from practicing sex discrimination against any person or small business concern. This improved the chances for success of businesswomen seeking SBA loans.

During 1973, the Veterans Administration revised its instructions to require that a spouse's income be counted in full in determining eligibility for a GI loan, and the Federal Home Loan Bank Board published guidelines that prohibit member institutions (savings and loans) from discounting a working wife's income when computing family income for purposes of making a home loan.

In order to better serve the financial needs of women, groups trying to found national banks are applying for charters in New York and Washington, D.C. Other groups are working in Connecticut, California, Oregon, Washington and Illinois to establish similar facilities. According to the founders, the banks do not intend to serve women exclusively, but would emphasize particularly the interests of women in such areas as loans, and would offer financial counseling. To attract a wide variety of depositors, the proposed Washington, D.C., bank plans to offer such services as electronic transfer of funds and computerized electronic verification of customer checks.

Women as heads of families

An important factor in the increasing number of female heads of families is the increased participation of women in the labor force. The availability of better jobs and wider choices has led to increased economic independence among many women, according to the Census Bureau, thus making it easier for them to maintain their own families on a self-sufficient basis.

The Census study found that women heading families in 1973 were more likely than their counterparts of earlier years to: be younger; be divorced, separated or never married rather than widowed; be better educated; and own their own houses. However, the one area in which women family heads lost ground was perhaps the most crucial of all—salary. The median income (in constant 1972 dollars) of families headed by women increased nearly 30 percent between 1959 and 1969 but decreased nearly 6 percent from 1969 to 1972.

Thus, while the American woman is breaking new ground in many professions, and while legislation has been enacted to prevent outright discrimination, there are still many areas in which, in the words of the popular song, she has "a long way to go."

Energy Management Digest

SYNTHETIC FUELS CONSORTIUM...In outline, the recent proposals of the U.S. for a synthetic fuels consortium within the International Energy Agency have these points: (1) such a body would enable the countries willing to provide technology and capital to participate in each other's synthetic energy projects; (2) the U.S. is committed to developing a national synthetic fuel capacity of one million barrels a day by 1985; (3) other countries will establish their own programs; (4) these programs would be coordinated, and IEA members would share in the results in proportion to their investments. Additionally, the U.S. proposed a research consortium within IEA to pool large-scale national efforts in fields where the costs are great and development times lengthy, but the long-term payoff in low-cost energy is potentially enormous. Secretary of State Kissinger, in making the proposals, said, "If America--the least vulnerable and most profligate consumer--will not act, neither will anyone else. Just as our action will have a multiplier effect, so will our inaction stifle the efforts of others."

MICHIGAN BUTTONS UP...The state of Michigan is instituting an energy conservation program for all state-owned and operated buildings. Detailed engineering analysis of buildings will produce recommendations for modifying the existing heating, ventilating, air conditioning, electrical and other mechanical systems.

ENERGY LAND BOOM...Several federal agencies are combining in an effort to encourage sale of surplus and excess U.S. Government land for energy-related uses. The Federal Energy Administration is working with the General Services Administration and the Defense Department in identifying surplus land and facilities with energy use potential and matching them with interested individuals or firms in the energy field. Each FEA regional office is maintaining a list of federal property declared surplus by GSA in that region, and also compiling a matching contact list of parties needing land or facilities for energy uses. The Federal Property and Administrative Services Act of 1949 authorizes transfer of ownership of surplus real property to state and local governments, private industry, and individuals. The Act gives GSA responsibility for designating the property as surplus and selling it at fair market value. Thousands of acres of land and facilities worth millions of dollars have been transferred to private ownership under the Act.

THERMAL SOURCE TAPPED...The Energy Research and Development Administration announced that drillers in southern Idaho have tapped the first hot water resource in the agency's geothermal development program. ERDA officials call the discovery encouraging, but do not yet know if the temperature and flow of water from the 4,650-foot well can meet their desired criteria for a project to produce electricity. Initial measurements showed a water temperature of 280 degrees (F) and a flow of about 1,000 gallons per minute. Efforts are under way to bring the temperature up to the desired 300 degrees and the water flow to between 5,000-10,000 gallons per minute.

GETTING AT THICK OIL...A possible method of getting more output from the country's reservoirs of thick (heavy) crude oil through thermal recovery techniques will be demonstrated under a cost sharing agreement between the U.S. Government and Hanover Petroleum Corp. of Dallas. The 30-month project will center on the Little Tom Field in Zavala County, Tex., where the relatively thin sand holds an estimated 75 million barrels of heavy crude which is too thick for efficient normal pumping. The in-place, combination thermal drive unit to be employed uses heat and pressure to thin the oil and push it into a producing well. Heat will be provided by burning part of the oil and pressure will be generated through the sequential generation of air and water.

COMPACT WASTES...Fluor Corp. of Los Angeles will design a new radioactive waste solidification facility for the processing plant of the Idaho National Engineering Laboratory. The new unit will be capable of processing 3,000 gallons per day of highly radioactive waste liquid by-products into granular solids which can be stored in one-tenth the space and with much less danger of leakage. Estimated cost of the facility is $60 million. It is due for completion in 1981.

Foreign Role In U.S. Energy Picture Seen Growing, But Remaining Relatively Small

"It is likely that foreign influence on domestic energy activities will increase" concludes a special report produced by the Federal Energy Administration.

Foreign Ownership, Control and Influence on Domestic Energy Sources and Supply indicates that 27 foreign companies have petroleum subsidiaries in the United States. Eighteen of these companies are Canadian, four are British, and there is one affiliate each from Belgium, France, the Netherlands, Japan and Norway.

Fourteen of the companies are producing between 8 and 9 percent of the crude petroleum produced in the United States, and the remaining 13 are doing exploratory work, marketing only, or have land leases in the United States but are not producing. Probably seven of the 27 companies provide petroleum for the U.S. market from wells outside the United States.

Shell Oil, which has been in the United States since 1912, accounts for about 80 percent of the U.S. crude production by foreign companies. Most of the remaining 20 percent is divided among Petrofina, British Petroleum (which owns 25 percent of Standard Oil of Ohio), Burmah Oil, which last year acquired Signal Oil and Gas, and Husky Oil.

Extent of holdings

Indications are that the foreign companies own about 12 percent of the 218,000 U.S. gasoline stations, less than a 3 percent net interest in U.S. productible oil wells, 11 percent of the proved petroleum reserves and 5 percent of the proved natural gas reserves. The value of these and other foreign energy holdings in the United States is approximately $4.4 billion, according to the report.

For comparison, a U.S. Department of Commerce survey conducted in 1966 indicated that U.S. companies had nearly 2,400 affiliates or subsidiaries in the petroleum and energy sectors abroad, about 500 of which were in Canada, and nearly 600 in Europe. The book value of U.S. petroleum and energy holdings abroad at the end of 1973 was $37.1 billion.

The FEA Report indicates that foreign ownership in the U.S. coal sector is small. Two Canadian and one German company own mines outright, and British Petroleum owns Standard Oil of Ohio's Old Ben Coal Company to the extent of its 25 percent holding in Sohio.

During the past several years, companies from Germany, France, Italy, and the Netherlands, primarily steel companies, have advanced loans or made prepayments to about 19 mining companies to enable the coal mine owners to mechanize, expand or open new mines in exchange for long-term coal delivery contracts, and in a few cases, some equity in the ventures.

The mines in which foreign companies have equity interest have about one-half of one percent of total reported recoverable coal reserves in the United States, but accounted for about 2.4 percent of U.S. domestic production last year. During the past several years annual coal production in the United States was not much above the 1950 level, but coal exports have increased steadily each year to about 10 percent of production.

FEA indicates that since sources of enriched uranium are limited, the United States probably will receive increased attention as a nuclear fuel supplier. Currently two Canadian companies account for about five percent of U.S. uranium concentrate output, a French company may build facilities for recovering uranium as a byproduct of its phosphate operation, two French and German companies are engaged with U.S. companies in uranium prospecting in some western states, and British Petroleum has a 50 percent interest in uranium deposits being delineated in New Mexico.

The Federal laws of the United States provide that corporations organized within the United States, even though foreign-owned, may acquire leases or permits to mine, or obtain rights of way for oil or natural gas pipelines on Federal land, provided that their countries grant reciprocal privileges to U.S. citizens.

The individual states control sales or leases of state-owned lands, and regulate sales of private land. The ability of foreign-owned corporations to mine on private land depends on individual state laws.

The report concludes that improved reliability in monitoring foreign control and influence will require:

(1) Systematic identification of foreign-interest investments in specific sectors of U.S. energy activities, including the amounts of such investments and the sources of capital; and

(2) Coordinated effort between all government data systems which collect and collate pertinent energy data, corporation equity interests, and foreign investments.

Copies are available from the FEA Press Room, Old Post Office Building, Room 220, 12th and Pennsylvania Ave., NW., Washington, D.C. 20461.

Dollars and Sense

A seminar on Finances and Today's Women—subtitled By Women and For Women—will be given at the University of Pennsylvania on March 11. Sponsors are the Philadelphia National Bank, the YWCA of Philadelphia and the Wharton School of Business and Finance of the University of Pennsylvania.

Topics scheduled are: investments, financial independence, estate planning, credit, planning for retiremen, today's woman as entrepreneur, and changing life-styles.

Keynote speaker is Muriel F. Siebert of Muriel Siebert & Co., Inc., She is the first woman ever elected to the New York Stock Exchange. Seminar panelists (all women) include businesswomen, university professors, and representatives from banks, brokerage houses, law firms and government agencies.

For information, contact Ms. Elaine Breslow, Mid-City YWCA, 2027 Chestnut St., Philadelphia, Pa. 19103 (215-LO4-3430) or Ms. Florence Blake, FC 2-4-53, The Philadelphia National Bank, P.O. Box 7618, Philadelphia, Pa. 19101 (215-629-3357).

EFFICIENCY PLEA—*Commerce Secretary Frederick B. Dent, (standing in picture at left) appealed to appliance manufacturing industry representatives (at right) to set voluntary efficiency goals under which their products would use less energy. Seated at Secretary Dent's left was Virginia Knauer, Director of the President's Office of Consumer Affairs.*

Homeowners' Energy Use, Off-Peak Power Systems To Be Documented

In a study with wide-ranging implications for the nation's homebuilding and utilities industries, two federal agencies are trying to document how Americans use energy in their homes.

The $234,000 study in a Maine housing development by the Federal Power Commission and Federal Energy Administration will also test heating systems using off-peak power.

The experiment is being conducted by the Westinghouse Electric Company in Clifford Berry Park, a new housing development in Biddeford.

FPC Chairman John N. Nassikas pointed out that the New England region is heavily dependent on fuel oil for space heating. "Therefore, measures that could reduce the energy requirements of this region would have significant impact."

Spreading it out

Roger W. Sant, FEA's Assistant Administrator for Energy Conservation and Environment, said "we have a great reserve of energy-generating capacity in our power plants during the off-peak hours when the equipment needed to meet peak demand is underutilized. If we can find ways to use that power wisely during off-peak hours, peak hour demand would be lowered and the need for new generating equipment diminished.

"This would mean national savings through reduced demand for materials for new plants or equipment and through reduction in use of energy-inefficient equipment which often is activated to meet peak requirements."

Westinghouse estimates that every kilowatt hour shifted from on- to off-peak hours could save $700 in investment costs for new equipment.

This equipment will provide one of the first tests of advanced energy conservation methods at a residential site. The residents of the development have agreed to have their homes monitored for energy consumption, which will reveal some aspects of their personal lifestyles to researchers. Sant said, "The project is, thus, a unique example of citizen-state-federal cooperation."

The development consists of 18 duplexes—detached houses with separate apartments on the first and second floors. All are occupied. The houses are well-insulated, with 3½ inches in the walls and 6 inches under the roof, and have been equipped with double-pane storm windows and doors.

Two off-peak power heating systems are being tested in 11 of the houses.

Nine houses are equipped with three heating systems: standard oil and electric resistance systems, and a water heating system which combines the use of a heat pump and storage tank to distribute heat collected during off-peak periods. A 500-gallon water storage tank has been installed in the basement of each house to test the system. Each heating system will be used for a specified period so that their comparative efficiency can be measured.

Two of the buildings are equipped with thermal brick storage systems which also use off-peak power. The equipment, which is used widely in northern Europe but not in this country, includes a radiator-like unit containing the heat-retaining blocks. They were purchased abroad for the project and installed in each room of the four apartments.

Seven buildings are wired to measure the electricity used by heating systems and major appliances. Some have thermostats that automatically reduce heating levels at night.

Other aspects of the project include:

- An on-site weather station to record outdoor and indoor temperatures.
- Theromographic mapping to measure heat leakage from the buildings to the outside with infra-red, which is sensitive to heat. This is done with a scanner about the size of a mobile TV camera.
- Use of a harmless tracer gas (sulfur hexafluoride) to measure how fast air enters a building from the outside through faults in construction, caulking or weatherstripping.

June delivery date

A report on the project is scheduled for delivery to FEA and FPC in late June. It will contain collected data on energy used by the 36 families involved, a description of structural characteristics of the homes which affect energy use, and an evaluation of the potential for energy conservation by the use of off-peak power. If the new systems and materials tested seem to warrant further use, the report will also make recommendations for policy decisions, standards, and regulations for their use, and incentives for promoting them.

In this connection, the project will provide the State of Maine with valuable assistance in developing programs to increase the thermal efficiency of homes constructed under their jurisdiction.

Study To Pinpoint Waste By Unbilled Electricity Users

The Federal Energy Administration has awarded a $65,240 research contract in an effort to find out how much electricity is used carelessly by people who don't have to pay their own bills.

FEA wants to determine the difference in the use of electricity in buildings that include electricity in rental charges—under so-called master metering—and those where tenants pay for their own.

Master metering is the use of a single meter to measure the electrical consumption of an entire building rather than individual meters for each unit.

"There has been a strong trend toward master metering, a trend that might have a significant impact on America's future energy consumption," said FEA Asst. Administrator Roger W. Sant.

Major difference seen

Early research in FEA's Office of Energy Conservation and Environment indicates that somewhere between 20 and 40 percent more electricity is consumed in buildings with master metering than in those with individual units.

Midwest Research Institute of Kansas City, Mo., an independent organization that has been involved in energy and energy conservation studies for more than a decade, was awarded the contract.

The six-month study will survey electricity consumption in master-metered and single-unit metered residential and commercial buildings in the nation's ten largest metropolitan areas and a number of other cities throughout the country.

Survey Aids Future Detection Of Seismic Activity In Alaska

Commerce's National Oceanic and Atmospheric Administration will survey a 435-mile segment of the Alaskan oil pipeline to help engineers detect the results of subsequent seismic activity. The estimated cost of the 4½-month geodetic survey, which is expected to get under way April 1, is approximately $170,000 to be shared equally by NOAA and the Alyeska Pipeline Company, the consortium of petroleum companies building the pipeline.

Under the agreement, NOAA's National Geodetic Survey will establish a line of fixed markers (bench marks) along the pipeline route from Prudhoe Bay on the Arctic to Fairbanks. The markers will denote elevations along the route which will enable engineers to monitor seismic activity by comparing elevations of the bench marks before and after suspected movements of the earth.

A geodetic survey is a precise survey which provides the basis for all forms of mapping, for the development of natural resources, and large engineering projects, including the alignment of highways and buried water and sewage lines and electrical conduits; and for the construction of bridges, dams, tunnels and nuclear power plants. The monitoring of the earth's movement at nuclear plant sites by geodetic surveys is essential to the selection of stable land sites.

Geodetic surveys also provide the basis for determining land boundaries and establishing accurate tax apportionment. The measurements take into consideration the curvature of the earth and are so accurate that they err by less than one-half inch in ten miles.

The National Geodetic Survey maintains the national networks of elevations and distances on which all accurate land measurements are based.

The bench marks, many of which are copper coated steel rods, will be sunk to as much as 80 feet into the Alaskan permafrost, the permanently frozen layer of soil, and will thus not be affected by surface or subsurface frost-heaving of the earth.

The ability to measure the earth's crustal movements along the pipeline will also provide the first precise measurement of the difference in elevation between the Arctic and Pacific oceans.

Foreign Trade Profits Sought For U.S. Lines Serving Great Lakes

A $168,000 research project to identify profitable trade opportunities in foreign markets for U.S.-flag lines serving the Great Lakes has been awarded by Commerce's Maritime Administration.

The 12-month study will be conducted by Simat, Helliesen, and Eichner, Inc., of Washington, D.C., and Boston, Mass.

In announcing the study, Assistant Secretary for Maritime Affairs Robert J. Blackwell said, "This important project hopefully will delineate ways and means of re-establishing American flag operations linking our 'Fourth Seacoast' with overseas markets and traders."

When the St. Lawrence Seaway opened in 1959, American liner operators began servicing Great Lakes ports. However, the service was only sporadic and the last operator withdrew from the trade in 1970.

Operators cited Seaway limitations on ships' draft and beam that were inconsistent with developing technology, multiplicity of cargo origins and destinations, circuitry of routes, comparatively high port time, and seasonality of the Lakes.

These factors, as well as shipper service requirements, will be analyzed by the study. It is expected that market penetration plans which will include vessels, operating plans, and marketing strategies will be formulated. The most viable plans will then be fully developed and evaluated against existing and expected future competition to determine the market penetration and profit potential of U.S. flag vessels.

Airborne Sensors Spot Heat Loss

A Nebraska utility recently undertook a thermal scanning project to help owners of homes and businesses in five communities it services measure the extent and source of heat leaks from their buildings.

CENGAS, the natural gas operation of Central Telephone and Utilities of Lincoln, contracted with the Remote Sensing Institute of South Dakota State University to collect the heat-loss data through the use of airborne infra-red sensing equipment.

The Institute plane spent one night each over Beatrice, Columbus and Norfolk, Neb., and Sioux Falls, S.D. It took two nights to survey Lincoln. The airplane traversed the length of each community approximately every three blocks, at 1,600 feet above ground.

The flights were all scheduled at night, when weather conditions were suitable. A clear cold night with snow on the ground was the most desirable. During the flights roof temperatures were recorded on a magnetic tape.

"The measurements are accurate to within ½ degree of the actual temperature," said a company spokesman.

Through an electronic process, the recordings on the magnetic tape will be translated to photographic sheets showing the outlines of buildings. Trained personnel will be able to visually decipher the material for property owners, who will be notified when information from the project is available. They may then contact CENGAS to see how much heat is escaping, and from where.

Through the proper application of the information, property owners will be able to determine if their building is adequately insulated.

Industry Highlights

Smaller Units Seen Leading Computer Industry Growth

Computer usage continues to expand in a widening range of business, government, and social applications, according to Marilyn Rurak and John McPhee of Commerce's Office of Business Research and Analysis. Automation is increasing notably in such areas as retail sales, law enforcement, business forecasting and health care.

Greater hardware diversity and software sophistication, as well as user needs to efficiently and economically manage resources and manipulate massive data bases, have increased computer usage.

The monthly rental cost of small computers has fallen to $1,000-$2,000, and may fall further, while accounting machines have been upgraded from electromechanical to electronic modes, improving their versatility and giving them limited computer capability. As a consequence, computing capability is accessible to a larger number of organizations for a wider range of applications at a monthly rental cost equivalent to one employee's salary.

Large-scale interactive computer systems were introduced during the 1960s in the form of reservation networks for airlines, hotels, and auto rental businesses. Consumers are now feeling the influence of the computer in the supermarket, department store, and bank. Many retail businesses are moving to computer-based point-of-sale systems (POS) to control inventory, manage cash flow, and insure fast, accurate checkout.

Banks have field-tested electronic funds transfer systems to various types of bypass their vast amount of daily paper work. The eventual goal is the instantaneous linkage of all consumer fund transactions, payrolls, retail purchases, utilities payments and bank transactions.

Integrated circuit manufacturers as well as computer firms are now producing circuit packages incorporating microcomputers, or computers-on-a-chip. These microcomputers, which sell in some cases for less than $300, and are going into such products as programmable calculators, intelligent terminals, medical analysis equipment, word processing machines, and transportation control systems.

New orders dip

During the year just ended, major mainframe manufacturers raised lease and purchase prices an average of 6 percent, citing increased labor and materials costs and the expense of capital. At year-end, some U.S. manufacturers were reporting that new orders were falling off, and that customer payments were slowing down. Order backlogs in some cases were equivalent to one-year's shipments at current levels, however, so that the order decline will not be reflected in shipments until mid-1975 or 1976.

U.S. manufacturers made several important new product anouncements during 1974, from small business computers to very large systems, some of which incorporate new concepts in communication networks. Peripheral equipment has been a strong growth area, reflected in such products as intelligent communications terminals, mass storage devices and point-of-sale terminals. Minicomputers showed vigorous growth, with many manufacturers enjoying 25 to 30 percent growth rates over 1973. Increasing minicomputer performance and capacity are pushing these devices upward into the area of small general purpose computers, and their continuing price reductions have pushed minicomputers down into the realm of the microcomputers.

Both minicomputers and microcomputers are finding diversified applications, playing important roles in the implementation of such concepts as distributed intelligence and networking.

Computer firms are pursuing research and development of numerous new technologies, particularly in the area of memories for secondary storage applications. Magnetic bubbles, charge-coupled devices, and optical/laser-based devices are in varying stages of development. Prototype memories, employing magnetic bubble and laser technologies, began limited field testing during 1974 at several sites.

Projections

The value of product shipments of computer equipment and parts by American manufacturers is expected to increase to $10,311 million in 1975. This will represent a 14 percent increase over 1974—a continued growth, but at a somewhat reduced rate from last year's 21 percent gain. Shipments in 1975 are expected to reflect the falling-off of orders in 1974 and user requests for delayed delivery as they feel the effects of the recession.

Minicomputers and small systems are expected to remain strong growth areas, as their markets are rapidly expanding. The acquisition of small, relatively inexpensive systems is perceived by some users as aiding them in increasing the efficiency of their operations and reducing overall costs. Therefore, a strong demand is expected for small systems, despite the recession.

Demand for large computers, however, is expected to be tempered by economic conditions. Upgrading of computer systems is expected to decline as users, faced with increasing costs, tight money, and possible falloff in their own business, decide to stay with current computers rather than move to newer, more expensive systems.

Projecting ahead to 1976 and 1977, shipments of small systems and minicomputers as well as peripheral equipment for large systems are expected to continue to increase. Demand for large computer mainframes is expected to be sharply restimulated, assuming an upturn in the economy, and the possible marketing of a new generation of computers. The market base for all types of systems is expected to widen as technological advances further bring down the cost of hardware and as new software makes computer operations simpler and less costly to the user.

The extent to which U.S. manufacturers advance the state-of-the-art and surpass foreign competitors will determine the continuance of American dominance in the world computer market. Recent studies indicate that there are critical minimum thresholds with regard to a firm's R&D expenditures ($50-$100 million per year), and the size of its installed computer base (greater than 10,000-12,000 units) which determine its competitiveness and even its viability in the computer marketplace.

U.S. firms are currently world leaders in computer technology, and possess the installed base necessary to make their products both cost competitive and profitable.

However, it appears that foreign competition is sharpening. The Japanese Government, having previously effected the mergers of the country's six major computer companies into three new firms, has backed R&D by these firms in computers of different sizes and capabilities. Recent product announcements indicate that Japanese manufacturers are beginning to bring this equipment to the marketplace. They claim that some of their newest computers are more powerful and less expensive than comparable U.S. machines.

European firms are also actively marketing new equipment. The British computer manufacturer, ICL, is beginning to market its new system in the United States for the first time. The tri-national computer company, Unidata, announced new models in 1974 for delivery in 1975. Its German partner, Siemens, is marketing new computers which are strongly competitive with U.S. products.

(Industry Highlights is prepared by the Office of Business Research and Analysis, Bureau of Domestic Commerce.)

Satellites, Computers Form Quick Crop Forecast Team

A new dimension in predicting coming food supplies and threatened shortages may emerge from experiments which have been started to determine whether crop forecasts can be improved by the use of spacecraft data analyzed with the aid of computers.

The project is called the Large Area Crop Inventory Experiment (LACIE). It came into existence as a result of a Memorandum of Understanding signed last October by the U.S. Department of Agriculture, the National Aeronautics and Space Administration (NASA), and Commerce's National Oceanic and Atmospheric Administration (NOAA).

LACIE is one of several large area experiments that NASA will undertake in cooperation with other user agencies to test the capabilities of earth resources survey systems for resource management programs. These experiments cover a wide range of endeavors, including investigation of earthquake faults, mineral resources, sediments and ocean currents and the question of where the Antarctic icepack is and where ships can go in that region. The latter task will be carried out for the U.S. Navy.

At the outset, LACIE will concentrate on wheat growing in North America. This will involve use of data from two NASA satellites, Landsat I and Landsat II. The latter satellite was launched in January. Each circling satellite covers the entire area of the earth in 18 days, and by staggering the two a reading of an area can be obtained each nine days. The same general area will be photographed, although the paths of the satellites are not precisely the same. In this way, pictures of sample areas of the wheat regions will be provided.

Overall estimate planned

Data from the sample areas received from the satellites will be processed into computer-compatible magnetic tapes at the Goddard Space Flight Center in Greenbelt, Maryland. The tape reels will be shipped to the Johnson Space Center in Houston, Texas, where a computer-assisted analysis of the data will be made to identify crops and to integrate the sample areas into an overall acreage estimate.

Meanwhile, other data and meteorological information will be obtained from NOAA satellites and from ground stations in order to relate weather conditions to yield estimates. An effort will be made to determine rainfall and temperatures, and such things as whether drought is developing to any harmful degree, whether crop prospects are reduced by a hard freeze or disease, and snow cover. From the data gathered by NOAA, an attempt will be made to develop a yield model showing average yield per acre.

Infrared photos will be taken night and day of specific areas, and the photos will be specially processed by computer over a week's period to make composite pictures. For example, continuous absence of clouds over a week's period would show black on the photos and possibly indicate incipient drought. Over a week's period a snow cover would show white and possibly indicate a favorable condition. One of the problems with satellite photos, NOAA experts explain, is clouds that obscure ground conditions. Continuous clouds make difficult any reading of the ground.

The yield model developed by NOAA will be sent to the Johnson Space Center at Houston to be integrated with the acreage information gained by the NASA satellites. By this means, a crop production estimate can be reached. However, prior experimental work on yield modeling will be made at other places, such as the Environmental Data Service's Center for Climatic and Environmental Assessment at Columbia, Missouri.

Those in charge of the project hope that the information on which computations will be made can be assembled a number of times during the growing season, thus making it possible to check the information repeatedly and correct errors.

During the first year of LACIE, computer techniques for classifying growing crops and estimating acreage will be refined, and results checked by visual-image interpretations and field reporting. During the same period, computer models relating weather and climate information to crop yield will be designed and tested. Routine procedures will also be developed to process and analyze the large quantities of data collected.

Each of the three agencies involved in the project will have its own project manager responsible for the resources provided by his agency and for guidance of its part of the LACIE implementation. However, to aid in integration of the overall effort, an interagency executive steering committee has been established to provide overall management and guidance. The day-to-day management of the experiment will take place at Houston under a LACIE manager selected by NASA.

Separate responsibilities

Although each LACIE task will require integration of the efforts of at least two of the agencies involved, each agency has certain lead responsibilities. They include: Department of Agriculture in defining output product requirements and in evaluating the utility of output products. NOAA

THE VIEW FROM ABOVE—*The area around Lawrence, Kansas, shown in the above aerial photograph, will be under regular scrutiny from two NASA satellites in order to improve crop forecasting techniques in the nation's wheat belt this summer.*

in developing and evaluating yield models and in providing climatological and meteorological data. And NASA in developing the sampling, classification, and mensuration systems, and in acquiring and processing data from its satellites. Final evaluations and results of the experiment are to be published in scientific and technical literature.

The Department of Agriculture will study the utilization of the experimentally derived production estimates in its crop reports, which are made public as a routine service to the domestic and international agricultural community.

Could be expanded

If the program proves successful during the first year, the plan is to extend it in the second year to other regions and ultimately to other crops.

"I think the LACIE project is a very exciting one," says Arnold Hull, Deputy Director of NOAA's Environmental Data Service and NOAA Project Manager for LACIE. "It is the result of the marriage of two significant concepts. First, recognition of the importance that weather plays in crops and that by utilizing climatological information equations may be developed from which a prognosis of crop yields can be made as the growing season moves along. Second, recognition of the fact that the imagery of the earth can be utilized for crop identification and acreage determination. As a result, these two elements can be combined to provide crop production estimates.

"When we realize that one of the most important elements in today's society is the availability of food, any effective tool in estimating food availability is of vital importance. So I think we are on the threshold of having a new tool available to the World Food Organization in meeting global food problems.

"I believe one of the things the project may do, if it proves successful, is to permit us to know where problem areas will develop as far as food needs are concerned. We will be able to tell ahead of time that this area or that will have a lower crop yield than normal, and how the World Food Organization should prepare to meet a situation that lies several months down the road."

Hull said the World Meteorological Organization and the United Nations Food and Agriculture Organization (FAO) are looking into means whereby various interested countries can be encouraged to compute their own crop yields as will be done in the North American wheat zones by LACIE. This has been proposed, he recalled, by the U.S. delegation to the World Food Organization. It involves the use of regression equations to show the effect of weather on crops. The information could be made available, he pointed out, to the World Food Organization and to other countries, and could be transmitted on a global basis by the World Meteorological Organization.

"We are devoting more effort to refining these equations," Hull said, "so as to develop more meaningful equations and more accurate estimates."

How would the new system produce better results than the old techniques that have long been in use?

"First of all," Hull said, "We would get at least as good if not better information. We would have a broader and more comprehensive view of what is happening. So far as wheat is concerned, we would get data from the entire wheat belt and not just from certain reporting stations."

"If the experiment proves successful," NOAA observes, "the new techniques, in combination with current crop estimating methods and historical production data, could benefit both producers and consumers by helping reduce the annual uncertainties affecting the management and marketing of major crops. Faster, earlier, and more accurate forecasts could assist in rational planning for the most effective use of supplies, as well as in emergency food distribution."

"The Department of Agriculture is actively participating in and supporting the LACIE project, and is interested in the potential capability of improving the content of international crop forecasts," says Howard L. Hill, Department agency project manager for LACIE. "By applying this to wheat, we expect to be able to assess the capability and requirements for establishing the system on an operational basis in the Department.

"We foresee that an operational crop forecasting system using these techniques would be of major benefit to the U.S. and to international organizations."

Conference To Assess State Of U.S. Metrication Effort

The extent of the U.S. switch to metric measurements to date, as well as the outlook, will be covered at a March 17-19 American National Metric Council conference in Washington. Billed as the "most significant metric event since issuance of Commerce's 1971 report," the meeting will be structured to provide a report to the nation on how metric implementation is being managed.

A major feature will be a display of metric products and information by firms which are already well along the road to implementation. Exhibitors will include the Canadian Metric Commission, Commerce's National Bureau of Standards, and more than 30 firms and organizations.

For details, write: ANMC Conference Registration, c/o Suite 700, 1629 'K' St., NW., Washington, D.C. 20006, or call Lou Perica at 202-232-4545.

U.S. Aeronautical Charts To Include Major Power Lines

All new aeronautical charts issued by Commerce's National Oceanic and Atmospheric Administration will include as a safety measure all major systems of power transmission lines.

Large steel transmission towers and their connecting power lines are often a hazard to low-level flying, but they also provide good visual landmarks for aircraft.

This is especially true when they pass through dense vegetation, including forests, where lanes have been cleared.

The large towers and lines enable pilots to follow them to their destination or determine their position when they cross them. The alignment of transmission lines in relation to railroads, highways, rivers and other land features is also an aid in local flying.

The National Ocean Survey has asked 113 power companies in 43 states and the District of Columbia for information concerning the nature and location of their distribution systems. The power companies will also be contacted periodically to insure that changes and additions to their transmission systems appear on the charts.

Accident figures

The step follows a recommendation of the Interagency Air Cartographic Committee, composed of representatives of the Department of Commerce, the Department of Defense, and the Federal Aviation Administration. According to the National Transportation Safety Board, there were 147 aircraft accidents in 1971 involving wires and poles, 31 of them fatal.

As the information from the power companies is provided, it will be added to the 37 visual sectional and terminal charts issued by NOAA for the United States.

Updated versions of the charts are published every six months.

"Location and alignment of transmission lines, in particular their relationship to railroads, highways, rivers and other cultural features, is of utmost importance to guarantee the accuracy of our charts," the Survey's letter advised the power companies.

NOAA's National Ocean Survey prepares and issues about 49 million aeronautical charts each year.

Charts now carry some power lines, based on flight surveys conducted by NOAA aicraft. Most are not recorded, however.

Survey Details Location, Number, Wages Of U.S. Public Employees

Most U.S. Government employees are concentrated in the Washington, D.C., area, right?

Wrong! Washington and the neighboring states of Maryland and Virginia accounted for only 18 percent of 1972 federal civilian employees: 440,364 out of 2,666,276.

Actually, the jurisdiction with the largest number of federal employees was California, with 300,234; next was Washington, D.C., with 173,447, closely followed by New York with 172,578. Texas, Virginia, Pennsylvania, Maryland and Illinois all had more than 100,000 according to the just-released *Compendium of Public Employment*, based on data from the 1972 Census of Governments.

However, in number of federal workers per 10,000 inhabitants, Washington was well out in front with 2,293; followed by Alaska's 482, Utah's 366, and Hawaii's 345. The national average was 131 federal workers per 10,000 population.

Vermont had the fewest federal workers, 3,832; followed by Delaware with 4,843, Wyoming with 5,481, and New Hampshire with 5,788.

California also employed the most full-time state and local government workers, 953,235 (199,914 state and 753,321 local). New York was next with 946,625 (182,241 state and 764,384 local), followed by Texas, 504,601; Illinois, 460,485; Pennsylvania, 448,209, and Ohio, 426,013.

Alaska had the fewest state and local workers, 21,816 (11,751 state and 10,065 local), followed by Wyoming's 22,522 (7,184 state and 15,338 local).

The national total of 78,218 local governments consisted of 3,044 counties, 18,517 municipalities, 16,991 townships, 15,781 school districts and 23,885 special districts. Illinois had the most local governments, 6,385, and Hawaii the least, 19.

Covers all levels

The report presents data on October 1972 federal, state, and local government employment and payrolls by function and by type of government. State-by-state statistics are presented for all levels of government. Data are shown for local governments by county area; by population size-group for counties, municipalities and townships; by enrollment size-group for school districts and employment size-group for special districts.

Employment and payroll data in this report cover such functions as national defense and international relations, postal service, education, streets and highways, health, hospitals, public welfare, police protection, corrections, local fire protection, natural resources, local utilities, financial administration, and general control.

Also included are state and county area distributions of public employment and statistics on retirement and insurance coverage.

Copies of the report, *1972 Census of Governments, Compendium of Public Employment*, Volume 3, No. 2, are available for $7.15 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 or from Commerce District Offices.

Minority Corporate Sales Reached $275 Million In '74; Firms Employing More

Minority firms did $275 million worth of business with large corporations in 1974, according to the National Minority Purchasing Council, a nonprofit organization working in conjunction with Commerce's Office of Minority Business Enterprise. This is a 16 percent increase over 1973 levels.

The Council has compiled the figures from reports by its regional purchasing councils located in 22 cities. These offices seek to match the procurement requirements of local companies with the capabilities of area minority firms. Headquartered in Chicago, the Council was set up in 1972 to help boost minority business sales. It counts some 360 firms, 130 of which are in the Fortune 500, among its member companies.

Minority firms are also adding a little muscle in the area of persons employed. Census Bureau figures show that the 163,073 black-owned firms with paid employees had an average of four workers in 1969. By 1972, there were 194,986 black-owned firms employing people, and they had an average of six employees each.

"The statistics indicate that the myth of black-owned business as a 'Mom and Pop' operation is no longer valid—if it ever was," OMBE Director Alex Armendaris said.

Business Aids Listed

Minority entrepreneurs in need of business assistance now have access to a comprehensive listing of potentially useful advisors through a recently published federal directory.

Published by the Department of Commerce's Office of Minority Business Enterprise, *OMBE-Funded Organizations* updates an earlier edition published in 1973.

Listing 227 sources of assistance for minority entrepreneurs, the 45-page publication gives the names of officials, addresses and phone numbers for construction contractor assistance centers, business resource centers, local business development organizations, business management development groups, individual state OMBEs, minority trade associations, and other OMBE-funded groups.

Limited copies of the directory are available from: OMBE Information Service, U.S. Department of Commerce, 14th & Constitution Ave., NW., Washington, D.C. 20230.

Slumping Areas Get $13 Million Economic Boost

All 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and American Samoa will share in $13 million in grants from Commerce's Economic Development Administration. The funds will be targeted to public works and business development loans aimed at stimulating long-range economic growth in areas of persistently high unemployment or low family income.

The highest apportionment, $970,000, will go to California, followed by Kentucky with $644,000, Mississippi with $636,000, Washington with $578,000, Michigan with $512,000, West Virginia with $490,000 and Puerto Rico with $482,000. Guam will receive the smallest amount, $1,000.

EDA will advise the states of the procedures for selecting which projects are to be financed.

The agency has also designated five high unemployment areas in four states for special assistance in planning and carrying out projects to create new jobs and raise incomes.

The areas are Beauregard and Jefferson Davis parishes, Louisiana; the Pittsfield area consisting of the City of Pittsfield and the towns of Dalton, Lanesborough, Lee and Lenox, all in Berkshire County, Massachusetts; Wells County, North Dakota, and Cabell County, West Virginia.

Such redevelopment areas are eligible for the full range of EDA benefits, which include grants and loans to help build facilities, loans and loan guarantees to encourage private enterprise to expand, and planning and technical assistance to help overcome problems blocking growth.

U.S. Population Growth Estimates For 2000 A.D. Shaved A Bit

The population of the U.S. may increase to only 245 million by the year 2000, a gain of 32 million, or 15 percent, above the present 213 million.

This is the low point in a series of projections on possible population growth in a new report released by Commerce's Bureau of the Census. The report is entitled "Projections of the Population of the United States, by Age and Sex, 1975 to 2000, with Extensions of Total Population to 2025, Series P-25, No. 541."

The report contains two higher projections as to population growth. Under the first, the population would rise to 287 million by 2000, an increase of 35 percent, and under the second it would advance to 262 million, a gain of 23 percent.

Each projection is based on varying assumptions as to the fertility rate, or the average number of lifetime births per woman. The projection that the population will rise to 245 million by 2000 assumes 1.7 births per woman. This is approximately the rate of the last two years. The projection that the population will rise to 287 million by 2000 assumes a fertility rate of 2.7, while the 262 million projection is based on a rate of 2.1

The 2.1 fertility rate is considered by the Census Bureau as the replacement level, under which U.S. population without immigration would cease to grow in 70 years. Obviously, population prospects are of major importance to the business community and to all segments of society. It is significant that the present 1.7 fertility rate is appreciably below the replacement level.

Zero population growth

"Population growth obviously must cease at some point in the future," the Census Bureau report says. The difficult questions concern when this will occur, at what level, and the path by which zero growth will be reached. This does not preclude the possibility of population decline after zero growth occurs.

Assuming a fertility rate of 1.7 per woman, the population would rise to only 250 million by the year 2025, an increase of a mere 5 million, or 2 percent, above the total at the year 2000. Thus at the present fertility level the population would increase only 37 million, or a little more than 17 percent, in the next 50 years. This shows long-term effects of a continuing fertility rate below replacement level.

Using the higher projections, the population in the year 2025 would be as follows: at a 2.7 fertility rate, 382 million; at a 2.1, or replacement level, fertility rate, 300 million.

The new range of population projections is slightly under that projected in the past by Census Bureau population experts. The old range included four projections, starting with a population assumption of 300 million in the year 2000 based on a fertility rate of 2.8, and dropping to a population of 250 million in 2000 based on a fertility rate of 1.8

Fertility is the component of population change that is subject to the greatest uncertainty in the future, the report says. Because of the difficulty of ascertaining the annual number of future births, even in the short run, alternative assumptions were made about the course of fertility. Together, these assumptions are believed to provide a reasonable range.

The projection based on the replacement level, the report explains, assumes that the average number of lifetime births per woman will drop from about 3.2 for women born in the early 1930s, and who participated in the post-World War II "baby boom," to 2 for those born in the early 1950s and who are now in the young childbearing ages, and then will converge to the replacement level.

Requires basic change

The report observes that for average fertility to drop much below 2 per woman, there would have to be a change in the social norm favoring at least two children per family, or in social and economic factors.

With regard to mortality, the report used the projections to the year 2000 by age and sex which were prepared by the Office of the Actuary in the Social Security Administration. The projected survival rates assume a small reduction in mortality until the year 2020 and no change thereafter. Average life expectancy at birth is assumed to increase from 67.9 for males and 75.7 for females in 1972 to 69.9 for males and 78 for females in 2020.

A net immigration of 400,000 per year is assumed, with the distribution by age and sex based on recent patterns. This is said to be close to the current annual level of alien immigration into the U.S., and also the average annual net civilian immigration during the last decade.

The population projections presented, the report says, are based on the general assumption that there will be no large-scale war, widespread epidemic, or other major catastrophe. While future levels of mortality and net immigration cannot be predicted exactly, changes in these two components are likely to have much less impact than changes in fertility.

Based on a replacement level fertility rate, the nation would have 127 million males and 135 million females in the year 2000. The median age for males would be 33.3 and for females 36.2. This compares with 103 million males and 108 million females on July 1, 1974, and a median age of 27.4 for males and 29.8 for females.

Likewise, based on a replacement fertility rate, there would be 18 million children under five years of age in 2000. This compares with 16 million on July 1, 1974.

Calendar For Businessmen

March 9-14—Washington—Annual Convention of Amer. Society of Photogrammetry and Amer. Congress on Surveying and Mapping, Washington Hilton. For information, Franklin Baxter, 4630 N. 21st Street, Arlington, Va. 22207. (703-860-6751.)

March 10-11 — Washington — Flame Retardance of Plastics conference, Shoreham Americana Hotel. Sponsor: New York University School of Continuing Education. For information, NYUSCE, New York Management Center, 360 Lexington Ave., New York 10017. (212-953-7266.)

March 10-12—New York—Cosmetics and Toiletries Packaging seminar, Delmonico's Hotel. Sponsor: New York University School of Continuing Education. For information, NYUSCE, New York Management Center, 360 Lexington Ave., New York 10017. (212-953-7266.)

March 14—Atlanta—Public Meeting on 1980 Census, Urban Life Center, Georgia State Univ. For information, Commerce Atlanta District Office.

March 17-19—Chicago—Machining seminar, Sheraton Chicago. For information, SCENYU, New York Management Center, 360 Lexington Ave., New York 10017. (212-953-7266.)

March 17-19—Chicago—Packaging, Planning, Marketing and Design seminar, Ambasador Hotel. Sponsor: New York University School of Continuing Education. For information, NYUSCE, New York Management Center, 360 Lexington Ave., New York 10017. (212-953-7266.)

March 17-19—Washington — American National Metric Council's First Annual Conference and Exposition, Washington Hilton. For information, ANMC Conference Registration, c/o Suite 700, 1629 K Street NW., Washington, D.C. 20006.

U.S. Industry, Government Officials, Soviet Spokesman Call For Trade Continuity

Strong calls for continued progress in U.S.-USSR commercial relationships were sounded last month from both the American and Soviet sides, and from governmental and business sources.

Secretary of Commerce Frederick B. Dent told the Rotary International in Chicago that the Administration will "continue to pursue all available avenues for improving our relationship with the Soviet Union" and he said that the U.S. may wish to re-examine the issue of extending export credits to the Soviets.

Soviet trade official Vladimir S. Alkhimov said in Washington that despite the recent Soviet withdrawal from the trade agreement concluded with the United States in 1972—a response by the USSR to provisions in the new U.S. Trade Act that it considers discriminatory—his country wants to press forward with its trade links to U.S. companies.

Alkhimov, who is a Soviet Deputy Foreign Trade Minister, is co-chairman of the U.S.-USSR Trade and Economic Council, which held an executive committee meeting in Washington. His counterpart co-chairman from the United States, Donald M. Kendall, said after the meeting that the council would marshal U.S. business support for Administration efforts to re-establish momentum in U.S.-Soviet commercial activities.

Kendall said that if this is not done "the U.S. business community will wind up sitting on the sidelines while others in the West get the trade action with the Soviets." He said that in many cases this would mean that U.S.-based multinational firms would win important contracts, but that the sales made and the jobs generated would fall to their overseas affiliates.

The U.S.-USSR Trade and Economic Council was formed last year as the result of the government-to-government protocol signed in 1973. It is a binational organization, representing approximately 175 U.S. companies and 113 Soviet foreign trade organizations and exporting enterprises. Honorary directors of the council are William E. Simon, U.S. Secretary of the Treasury, and Nikolai S. Patolichev, Foreign Trade Minister of the Soviet Union.

Called by the American side of the council, the executive committee meeting sought to formulate specific plans for guidance of business interests in both countries following the setback to the 1972 Trade Agreement.

Alkhimov emphasized that the USSR was ready to proceed now on major projects in the fertilizer, gas, offshore oil and tourism fields, and that credit provisions were an important part of these ventures. He listed a number of current Soviet credit lines with the major Western nations and said that they amounted to more than $8 billion.

Kendall's point that curbs to U.S. credit to the Soviet Union can throw major export opportunities to overseas affiliates of U.S. companies was made also by Secretary Dent in his Chicago address. The Secretary said:

"In the Eastern European markets, we are, of course, cognizant that we face stiff competition from Western European nations and Japan. The Soviets and other nations find government-sponsored credit readily available from these competitors, thereby placing our trade with them at a distinct competitive disadvantage.

"The possible adverse effect of this credit situation is that American companies may be forced—for competitive reasons—to deliver manufactured components on their successful contracts from third countries where they can obtain government-sponsored credit. This, of course, denies American workers the privilege of working on these orders. This is especially unfortunate now when unemployment is at such a high level.

"This credit situation is an issue that we may wish to re-examine in the light of current employment needs, the necessity of keeping our products (and jobs) competitive in world markets and the basic statutory purpose of the Eximbank to expand U.S. exports. We must remember that we have 8.2 percent unemployment in this country. It may go even higher. We need every job that we can generate."

Dent put before the Chicago group a perspective statement on the U.S.-Soviet issue: "It is our clear policy to continue to emphasize and encourage expansion of commercial relations with the Soviet Union. This policy is pursued both as being in the interest of detente and as being in the mutual economic interest of the two countries."

FOR MOMENTUM IN TRADE—*Progress in trade between their two countries was the subject for these officials of the U.S.-USSR Trade and Economic Council (from left): Harold B. Scott, President; Donald M. Kendall, U.S. Co-Chairman; Vladimir S. Alkhimov, Soviet Co-Chairman, and Soviet board member Vladimir N. Sushkov.*

FOR EXPANSION IN TOURISM—*Delegations from the U.S. and the Soviet Union discussed mutual tourism expansion recently in Washington. At left is C. Langhorne Washburn, Assistant Secretary of Commerce for Tourism and head of the U.S. Travel Service, who led the U.S. group; at right Viktor K. Boichenko, president of Intourist, who led USSR group.*

Tourism, Too, Gets A Mutual Boost

Increased two-way tourism between the United States and the Soviet Union and U.S. investment in construction of hotels in the USSR were the major topics of discussion in a Washington meeting of delegations from the two countries.

The Washington talks were a continuation of initial discussions held in Moscow in September 1974. Other major topics of discussion included: improving guide services for Soviet visitors to the United States, including use of language and translation services; special interest tours; visa facilitation and gateway accessibility in both countries; and expanded foreign exchange facilities for international visitors to the Soviet Union.

In a joint statement, the two tourism groups said, "We have made a great deal of progress which we believe will enable tourism to serve more fully the mutual economic, cultural and political interests of our two countries and greatly reinforce the growing trend toward Soviet-American understanding and collaboration."

Specific promotions were discussed for support of the American Revolution Bicentennial and the 1980 summer Olympic games, which will be held in Moscow. The delegates agreed to pursue a suggestion of Secretary of Commerce Frederick B. Dent that Intourist, the Soviet tourist office, and Aeroflot, the Soviet national airline, organize a coast-to-coast tour of the United States later this year. The planeload of Soviet visitors would make many public appearances to dramatize the growing role of tourism as a major form of people-to-people diplomacy and the interest of the Soviet traveling public in bicentennial tours.

More than 11,000 Soviet citizens visited the United States last year, and 85,000 U.S. tourists traveled to Russia. The Soviets said that there is increased interest on the part of Soviet specialists in attending congresses and conferences in the United States.

Broad agreements were reached on possible large-scale cooperation between Intourist and U.S. hotel companies in the development of new international class hotels in the Soviet Union, especially in Moscow, Leningrad, Kiev and other leading tourist centers. These hotels would be financed and constructed on a turnkey basis, and operated by Intourist.

The Soviets also announced a proposal for improving services for the increasing numbers of U.S. businessmen visiting Moscow. American Express and other U.S. travel companies will reserve specific rooms with rapid confirmation for business clients in four prestige downtown Moscow hotels in which Intourist will provide services for the business traveler.

Both delegations consider simplifying visa formalities as essential to improved tourism between the two countries.

Pan American World Airways and Aeroflot have agreed to increase the number of flights between the United States and the USSR to four per week by each airline during the summer season of 1975.

Members of the U.S. group, in addition to chairman Washburn, were: Howard L. Clark, chairman and chief executive officer of the American Express Co., serving as vice chairman; Harold B. Scott, president, US-USSR Trade and Economic Council; Curt Strand, president, Hilton International; Robert McMullen, president, American Society of Travel Agents; and James A. Henderson, executive vice president, American Express Co.

Also in the U.S. group were Thomas J. Flanagan, senior vice president, Pan American World Airways; William D. Patterson, international travel advisor; and Cord Hansen-Sturm, director of business development, USSR, China and East Europe for the American Express Co.

Stage Now Set For Bargaining In Trade Talks

High-ranking trade officials of the world's major trading countries met in Geneva last month to launch the substantive phase of a new round of Multilateral Trade Negotiations (MTN).

This seventh round of world trade talks, under the auspices of the General Agreement on Tariffs and Trade (GATT), was formally initiated with the signing of the Tokyo Declaration in September 1973. Serious bargaining, however, was delayed pending the enactment of U.S. trade legislation. With the signing of the Trade Act of 1974, the Administration obtained its negotiating mandate and came to the Feb. 11-13 meeting prepared to begin actual negotiations. It is expected that these negotiations will be the most comprehensive effort for trade liberalization undertaken since World War II.

Leaders in delegation

The U.S. delegation to the GATT Trade Negotiations Committee (TNC) was headed by Ambassador Harold B. Malmgren and included members of both the House and the Senate, including Senator William V. Roth, Jr., of the Committee on Finance; Rep. Al Ullman, the new Chairman of the House Ways and Means Committee; Rep. William J. Green, the new Chairman of the Subcommittee on International Trade of the Ways and Means Committee; and Rep. Barber B. Conable, Jr., the ranking minority member of that Trade Subcommittee.

As both Representative Ullman and Senator Roth noted publicly, close cooperation between the Congress and the Administration will insure that the Congress, by participating fully in the negotiating process, will be in a better position than it has been in the past to act rapidly to carry out the results of the talks.

In his opening statement Ambassador Malmgren drew attention to the fact that the issues facing the U.S. and its trading partners are much different than those of two years ago in Tokyo. Disequilibrium pervades the international monetary structure; markets for supplies of food and raw materials have been disrupted; and countries have been confronted with unprecedented deficits in their trade balances. This changed complexion of the global economy threatens seriously to undermine the basic competitive structure of the international trading system as some countries are tempted to seek solutions to their individual problems on purely national

grounds. He argued, however, that it is precisely this current economic uncertainty which makes it imperative that the nations of the world recall the objectives of the Tokyo Declaration and work together in a multilateral framework to solve their problems.

These negotiations, he said, will mark a turning point that will determine whether the world can solve mutual economic problems through cooperative efforts or if countries will move unilaterally in ways that further disrupt the interdependent world economy.

U.S. objectives

Referring to the Trade Act, Ambassador Malmgren pointed out that the U.S. has unprecedented authority to reduce tariff rates, to attack the increasingly significant problems posed by nontariff barriers to trade (NTBs), and to implement a system of generalized tariff preferences which will provide "fair and reasonable" access to the U.S. market for the products of less developed countries. Additionally, the Ambassador noted that one of the most important U.S. objectives is to seek liberalization of agricultural trade in conjunction with efforts to liberalize industrial trade.

Discussions during the TNC meeting focused on reaching agreement on the content and scheduling of the early stages of the negotiations. Functional groups were created to explore solutions to problems in six areas: nontariff barriers (NTB's), tariffs, agriculture, international safeguards, negotiations on a sector basis, and tropical products. Initial meetings of each of these groups beginning March 3—and lasting well into April—will seek to determine how the issues in each area will be organized and discussed.

Agricultural role is crucial

A major stumbling block to agreement on this phase of organization for the MTN work program centered on deciding what role agriculture should have in the talks. The U.S., concerned that liberalization of agricultural trade might lag behind that in industrial products, pressed against separating negotiations on agricultural and industrial questions. The European Economic Community (EEC) has sought to deal with agricultural and industrial products separately. In the course of the TNC meeting a compromise was reached that provides for a working group on agriculture to be established but also allows agricultural issues to be discussed in the other working groups, particularly those dealing with tariffs and NTBs. Further agreement on the proper role of agriculture is expected to be worked out during the negotiations.

The most promising area for moving ahead in the multinational negotiations appears to lie in the NTB area where the key U.S. objective is agreement on a series of international codes of conduct on important barriers to trade. There are three national nontariff barriers of priority interest to the U.S. which lend themselves to such codes: subsidies and countervailing duties, product standards, and government procurement practices. A great deal of preliminary work has been done on these NTBs and there is a general consensus among the major trading countries that these issues must be dealt with on a priority basis. Of the three, U.S. negotiators believe that a code on product standards appears to hold out the best hope for early agreement.

While initial U.S. efforts may be centered on negotiating agreements in the NTB area, work on tariffs is also expected to move ahead steadily. Over the next several months, negotiators in Geneva will be discussing proposals for a general tariff-cutting formula which will be used as a bench-mark for eventual tariff reductions. In the fall of this year, work will begin on deciding which products will be subject to tariff negotiations and how great the tariff reductions on these items will be.

Sectoral approach

Although the U.S. is seeking separate agreement on NTB codes and a general tariff reduction formula, both the Tokyo Declaration and the Trade Act envision the possibility of negotiations on a sector basis. Under this approach, all barriers to trade in a particular product sector would be negotiated on a coordinated basis. In this way it may be possible to obtain more open and equitable market access than is otherwise possible.

As the Geneva talks progressed, it became apparent that the issue of access to raw materials is another crucial problem that should be addressed in the MTN. The less developed countries, which are the source of many of the raw materials needed by the industrial world, realize that their bargaining positions in large part may revolve around this issue.

The procedures for safeguarding domestic industries from disruption by similar imported products is another area where international agreement will be essential to insure that the lowering of trade barriers resulting from the MTN is not counteracted by excessive new import restrictions. The principal objective of these safeguard discussions will be to develop rules that permit the economic adjustment of specific industries affected by increased imports without unduly shifting the burden to other countries or other domestic industries.

As discussions in Geneva move ahead, domestic efforts to develop positions on specific concessions will be actively pursued. As required by the Trade Act, the Administration is seeking the views and advice of all parties interested in these trade negotiations including consumers, industry, agriculture and labor. Information will be received through the public hearings being conducted by the International Trade Commission and the executive branch hearings to be held by the Trade Information Committee. Additionally, an extensive program of formalized private sector advisory committees is currently underway. These inputs will be considered during the summer as the negotiators develop the detailed bargaining postions necessary to achieve early results. (See *Commerce Today*, Jan. 6.)

The TNC meeting has laid the groundwork for effective progress in the MTN. Although the Trade Act provides for five-year negotiating authority, the U.S. aim is to achieve as much as possible by the end of 1975 and to conclude all aspects of the MTN by the end of 1977 or early 1978.

Illinois Will Be Honored At New Orleans Meeting

Illinois will be the honored state at the 30th Mississippi Valley World Trade Conference March 5-7 in New Orleans. Governor Dan Walker of Illinois will speak at the closing banquet. Another Illinois leader, James H. Ingersoll, vice-president of the Borg-Warner Corp. of Chicago, will explore the role of multinational corporations.

Theodore N. Silverman of the Illinois Department of Business and Economic Development will lead a panel discussion on the state's encouragement of both industrial and agricultural sales to world markets.

Lawrence A. Fox, Deputy Assistant Secretary of Commerce for International Economic Policy and Research, and Sergey Mkrtumov, Trade Representative of the USSR in the United States, will discuss the current outlook for East-West trade development in another session.

Latin America Business Subject Of Conference

The climate for business in Latin America will be explored at a conference in Washington March 25-26 for business executives.

It will bring together U.S. and Latin American government officials to examine issues and opportunities in Mexico, Brazil, Argentina and the Andean Common Market. Bernard J. Cahill, director of Commerce's Latin America Division, will speak at the session on Mexico.

Sponsors are the School of Advanced International Studies of the Johns Hopkins University, International Management and Development Institute and Council of the Americas.

For registration information contact Deborah Nelson, 202-785-6800.

U.S. Building Materials Well Received By French Buyers At Paris Exhibition

Despite a recent downturn in the French construction industry, U.S. exhibitors at a late '74 Paris Trade Center show expressed strong satisfaction with sales of their products. On display were goods ranging from building materials and equipment to interior decorating items such as carpeting and wallpaper.

Results of the show indicate that exhibited products with high sales potential included a portable shower, sanitary equipment, mortar additive, protective film, corrosion-proof cement and epoxy products, and cushioned vinyl flooring. Products with good sales potential included pipemaking machinery, high pressure water jet, wet sand blasting cleaners, gun nailers, multi-purpose saws, direct engine pumps, tools for large diameter and ductile pipes, draggers and drivers, insulating material for pipes, floor covering, anti-slip surfaces, moldings, wall coverings, metallic papers, pre-fabricated metal elements, pre-fabricated buildings, structural building and postal equipment, crash cushions, garbage disposals and wire storage units.

Exhibitors suggested strong future potential for innovative tools for handling large-diameter pipes, multi-purpose construction materials for corrosion or weather-proofing, pre-fabricated, pre-insulated pipe-within-pipe systems, curtain-walls and pre-engineered steel building elements and epoxys.

As reported in the Dec. 9 issue of *Commerce Today*, page 25, the 23 exhibitors representing 32 companies sold more than $1 million worth of products and project sales exceeding $12 million during the year.

SWATCHES EVERYWHERE—*Stephen C. Pohe (right), Mannington Mills export manager, shows carpet and foam vinyls to a prospective French distributor during Paris exhibition.*

Telecom 75 In Geneva Seen Outpacing Earlier Fair

TELECOM 75, the 2nd World Telecommunications Exhibition, is to be held in Geneva Oct. 2-8. Already, the number of participating companies surpasses those of TELECOM 71. Participating companies are from Belgium, Canada, Spain, Hungary, Iran, Japan, Poland, Germany and the United States, among other countries.

TELECOM 75 is being organized under the auspices of the International Telecommunication Union (ITU). Systems and product suppliers in data communication, broadcasting, telephony, telegraphy and radio will exhibit their most up-to-date equipment. Four international conferences will coincide with the exhibition.

Write: Werner Wolter, International Telecommunication Union, 7277 Geneva 20, Switzerland.

U.S. Exhibition Results In Brief

The following summary reports have been received on U.S. overseas commercial exhibitions. Further details and marketing data derived from these exhibitions will be published as available.

PRINT '75—Printing and Graphic Arts. Offsite U.S. Trade Center, Taipei; held at International House of Taipei, Jan. 28-31. Exhibitors, 25. Floor sales, $600,900; 12-month projection, $2.5 million, of which $1.4 million was estimated by new-to-market firms.

Audio-Visual Equipment. U.S. Trade Center, Paris, Jan. 21-23. Joint Export Establishment Promotion (JEEP) presentation. Exhibitors, 7 new-to-market. Floor sales and 12-month projection, $401,800; business visitors, 478.

Technology Fair Scheduled For Belgrade In September

The First International Fair of Technological Innovations and Transfer Technology will be held in Belgrade, Sept. 6-14.

The new fair is sponsored by the Yugoslav Association of Graduate Engineers and Technicians in conjunction with, among others, the Federal Institute for International Scientific, Cultural, Educational and Technical Cooperation and the Yugoslav Association of Inventors and Authors of Technological Promotions.

For additional information, write: Miladin Sakic, General Director, Belgrade Fair, POB 408, 11001 Belgrade, Yugoslavia.

U.S. Exhibitors Welcome At Rome Hospital Show

U.S. firms may wish to participate in the third annual Hospital Construction and Equipment Show in Rome Nov. 8-13. The event became international in its second year, when 60 firms—four from the United States—took part.

The 1975 show will provide an opportunity for a first-hand look at the marketing effects of the decentralization of the Italian hospital system to the regional level. Write: Dr. Ugo Ciampolillo, Secretary General, Hospital Construction and Equipment Show, Via Guido Banti 13, 00191 Rome, Italy.

COMPANY TEAM AT LONDON SHOW—*Mr. and Mrs. Ronald Savin, president and vice president of Premium Finishes, discuss firm's high-performance finishes with business visitors.*

U.K. Under-Investment Seen As Gain For U.S. High-Performance Materials

Under-investment in new plant and equipment, a critical problem for the United Kingdom, can result in benefits for U.S. producers of what are called high-performance materials.

This conclusion emerged at a recent exhibition of such materials at the London U.S. Trade Center, in which 20 U.S. firms are projecting sales over the next year at $6.8 million. New-to-market firms are projecting $5.7 million of the total.

High-performance materials, as displayed at the exhibition, include a variety of metals and plastics processed to withstand heavy strains or extremes of temperature.

Final products made from other than high-performance base materials may continue as an important share of British production, but, according to trade sources, it will be an ever-decreasing share. The United Kingdom, in turn, does not have the modern plants to produce, in most cases, the base materials. Furthermore, the first industries that would be expected to expand are likely to be the assembly and distributive type—importing components made from the various high-performance materials.

Within this large category, there is an almost endless variety of products. It was thus impossible to give a single growth trend prediction. In general, the prospect for an immediate increase in sales was seen to be very good and the prospect for much greater increases during the next three to seven years appears to be excellent.

One of the exhibitors pointed out that whatever the current condition of the U.K. economy, his company very likely will supply $13 million in special high-performance materials to firms constructing modules for use on the North Sea off-shore oil rigs. This was just one of the firm's successful contacts at the show.

The London exhibition proved clearly the need for U.S. firms to get exposure to foreign buyers and users on a face-to-face basis. As one representative of a London firm put it, "Had these companies only been known to us a year ago, we would have purchased even more than we can purchase now and the stage would have been set just that much earlier for sustained and rapid growth in the utilization of these products."

U.S. Bows At Leipzig Trade Fair With Business Office

The first official U.S. Government participation in the German Democratic Republic's Leipzig Trade Fair will be a Business Dvelepoment Office at this year's event, March 9-16. The dual themes of the Business Development Office, to be set up by the Commerce Department, are machine tools and materials handling equipment.

For each of the themes, an industry expert will be present to discuss U.S. products and how those products can be used to solve East German production problems. John Connor of the National Machine Tool Builders Association will represent U.S. made machine tools and Gregory Shultz of *Factory* magazine will represent U.S. materials handling equipment.

European Yarn Sales Market Has Promise, U.S. Spinners Find

European knitters, weavers, and agents displayed considerably higher interest than had been anticipated, when seven member firms of the American Yarn Spinners Association recently visited business counterparts in the United Kingdom, France, and Germany.

The group comprised a trade mission co-sponsored by the association and the U.S. Department of Commerce, and was the first such mission devoted exclusively to the promotion of U.S. exports of sales yarn. In eight working days, the members conducted more than 350 interviews.

These are the preliminary conclusions reached, according to Jim H. Conner, executive vice president of the association and mission leader:

- While some grades of cotton yarns will be difficult to move because of competition from low-wage countries, long range potential appears to exist for high quality medium- to fine-count yarns, blends, 100 percent manmades, and specialty or novelty yarns.
- U.S. prices seem to be fairly competitive with those of local spinners, and quality is equal to that of European producers. On some yarns, duty and freight become a major factor in delivered pricing.
- Each of the three countries is importing sizable quantities of yarn to supplement domestic production.
- Credit terms appear to be liberal in Europe and often run as long as 90 to 120 days, particularly in France.

In the United Kingdom, the weaving segment of the industry is concentrated around Manchester and the knitting segment, around Leicester. The mission visited both of these cities, as well as Paris, Frankfurt, and Stuttgart. In Paris alone, despite communication problems stemming from the mail strike, the participants talked with some 180 individual businessmen. In Stuttgart, the members met with the German Knitters Association. Several agency agreements were being negotiated at the close of the mission.

Paint Show In Hamburg

U.S. firms may wish to participate in "Farbe '75 Hamburg," to be held in Hamburg, Germany, Sept. 25-28. This international exhibition of paint and varnish includes new tools, machinery, facing materials, finishes and application techniques for home and industry. About 200 firms from 12 countries are expected to participate in the triennial event. Write: Hamburg Messe und Congress GmbH., 2 Hamburg 36, Jungiustrasse.

Worldwide Business Outlook

Objective Analysis Of Italy Reveals Many Sales Leads

American exporters to Italy today, more than at any other time in the recent past, should have a broad view of the economic panorama there. With the alarmist press given to Italy worldwide, often exporters do not see the brighter side of the picture, according to Albert L. Zucca, Commercial Officer at the U.S. Embassy in Rome.

An inventory of negative items is easy; the same problems are found to a varying degree in almost every industrialized country. Italy has one of the highest inflation rates in the world, about 25 percent annually. Substantial layoffs have occurred in the automobile and auto-related industry, hitting the Turin area especially hard. Then there is the tight credit picture. A prior import deposit scheme announced in May to help correct the country's balance of payments deficit and restrict liquidity has curtailed availability of credit for imports. Bank credit ceilings have also limited import financing. All these, and Italy's political instability, have created some uncertainty and business pessimism.

What may be overlooked by American exporters seeking to enter new markets or expand existing ones are the more favorable aspects. The trade deficit, exclusive of oil, has improved substantially; there is a possibility it can be eliminated by the end of 1975. Exchange reserves are still high, and substantial credits are being made available by Italy's EEC partners. Production levels remain strong in steel and chemicals. Port activity, especially in the most active ports in the North such as Genoa, is high. Budget revenues are up. Consumer spending remains high, although spending on luxuries such as higher grades of meat is as much as 25 percent off, as the housewife implements her own austerity program. Gross national product was expected to attain 4.5 percent in real terms with the possibility of 1.5 percent growth in 1975.

If present measures continue, the high inflation rate could be trimmed to 16 to 20 percent in 1975. Tight credit has helped to keep down inflation, and the import deposit system has reduced demand for luxury items. And, on the political side, the most recent government crises have been resolved.

Despite the austerity program, American exports to Italy have grown markedly, even in real terms. U.S. sales increased almost 55 percent for the first six months of 1974, and full year sales easily surpassed total 1973 levels of $2.3 billion. These sales have not come easily, however. Germany and France remain our biggest competitors, holding shares of the Italian market of 18 and 13 percent, respectively. U.S. competitors are continuing a high sustained level of sales promotion through trade missions, trade fairs, and special promotional events. Therefore, U.S. exporters should continue to direct private efforts, participate in U.S. Government promotion efforts, and give their Italian importers reasonable financial assistance to maintain and expand existing markets.

The import deposit scheme has been mentioned by U.S. exporters and some Italian importers as the most serious detriment to increased export sales. Since the scheme was first applied in May, Italian importers with longstanding and solid relations with American companies have been helped by their U.S. suppliers either by greater direct export financing or, at the least, a stretch-out of credit.

Special attention is currently being given to promotion of products in the following categories. Through mid-1975, American exporters wishing to sell in these areas should contact the nearest Commerce Department District Office in order to participate in the many and varied programs that have been arranged: computers and related equipment; process control instrumentation; specialized machinery; power sources and energy related equipment; avionics and airport equipment; electronic components and related consumer products; and business automation equipment.

In addition, Zucca identifies a number of major projects which are either coming to fruition soon or are in the process of development. In some cases these projects involve hundreds of millions of dollars of potential U.S. sales, over a period of several years. These include the following:

- Establishment of a nationwide system of private cable TV. The Italian Supreme Court has cleared the way by ruling that regional entities can operate independent cable TV networks under regulations, yet to be specified, of the central government. American cable TV firms have had continuing technical contacts with the appropriate ministries in order that standards will emerge which reflect exposure to U.S. cable TV technology.
- Port developments in Palermo and Genoa. Extensive plans are under way for construction of large dry docks, purchase of giant floating cranes, and construction of other related port facilities. Although there are local finance problems and it appears that bidders must be registered locally, American suppliers, contrac-

ITALIANS ARE BUYING—*Businessmen at the Embassy Theater in Rome view a variety of laboratory products by Artek System Corp., Farmingdale, N.Y.; Bel Art Products, Pequannoch, N.J.; Cooke Laboratory Products, Alexandria, Va.; Nalge Co., Rochester, N.Y.; and Wheaton Scientific, Milville, N.J. All five are represented in Italy by Paul Funke and Co.*

tors and engineering companies have excellent prospects for sizable sales in this area.

▸ Gioia Tauro Steel Center: The first stage involves construction of port and infrastructure facilities and is expected to take several years. Plant construction will require imports of iron and steelmaking equipment and equipment for port facilities.

Another program which offers attractive potential for U.S. sales and underscores Italy's determination to act in the face of its economic problems is an emergency plan on public investments, involving state contributions over several years for 49 regional public works and construction projects. Much of the funds are slated for the Italian South, the "Mezzogiorno".

Other interesting sales areas

Other areas offering interesting sales prospects include:

- Health care industry equipment and instrumentation: Because of its high standards, American medical equipment enjoys a good reputation although there is a price disadvantage vis-a-vis similar European products. However, when American products incorporate the latest design or technology the price factor is often discounted.
- Educational equipment and supplies for industry: This market, which includes advanced audiovisual equipment and educational aids, shows strong potential for growth. Italy's industry requires the most advanced equipment for training; and looks to foreign suppliers, especially the United States, for new and sophisticated technology.
- Industrial and commercial security equipment and systems: In the face of continuing heavy losses by fire and theft and the high cost of insurance in a period of inflation there has been steady growth in demand by Italian industries and businesses. Italian recognition of American leadership in this field was shown in highly successful shows on security equipment at the U.S. Milan Trade Center in 1972 and 1974.

The key promotional facility in Italy remains the U.S. Trade Center in Milan. Shows through June include avionics and airport equipment, energy and power sources, industrial assembly, advanced electronic components, building equipment and materials, minicomputers, "Hi Fi U.S.A." and "Do-it-Yourself." The center has a proven record of success in promoting sales of U.S. equipment and advanced technology to Italy. Moreover, special related events can be conducted in such locales as Rome for selected small groups of exhibitors who wish to penetrate other markets in Italy or meet with government officials prior to the main show in Milan.

EEC's Harmonization Of Standards Can Simplify Product Preparation

The European Economic Community (EEC) countries have stepped up efforts to harmonize industrial standards in an attempt to remove technical barriers to trade between member states.

Historically, standards were developed more or less autonomously by individual countries. In 1969 the EEC established an initial harmonization program. Some 50 directives in the industrial sector have been issued so far; half of these pertain to motor vehicles and tractors. The EEC, consisting of Belgium, Denmark, France, West Germany, Ireland, Italy, Luxembourg, Netherlands, and the United Kingdom, plans to adopt by 1978 a total of 130 standards covering many industrial products, including measuring instruments, electrical equipment and textiles.

U.S. exporters will benefit from these harmonized EEC standards, assuming that they are compatible with U.S. standards and applied in a nondiscriminatory manner. With harmonized standards, U.S. producers will not have to meet individual national requirements. On the other hand, if a U.S. exporter does not fully comply with the technical or administrative requirements, its products may face increased barriers in entering the EEC.

These specific directives are published in the *Official Journal of the European Communities;* texts of a proposed or approved directive may be obtained from the European Community Information Service, 2100 M St., NW., Suite 707, Washington, D.C. 20037, 202-872-8350.

The present EEC program stems from a December 1973 resolution on industrial policy which included a timetable for harmonizing standards. The EEC Commission proposes which product standards should be harmonized in order to promote free circulation of goods, and consumer and environmental protection. The Commission, aided by industrial consultants, drafts standards or modifies existing standards to be adopted by all member states after approval by the Council, which is made up of Ministers from each country. The Council's standards directive typically should be adopted into the law of the individual country within 18 months, although in practice many member states do not adhere to the time schedule. Once the EEC standard is incorporated into national law, policing and enforcing is the responsibility of the member state.

Some recent Commission proposals for Council industrial standards directives cover such items as gas appliances, farm tractors, and construction machinery. Two proposed standards relating to gas appliances set forth the procedure for obtaining EEC approval and certification of the appliance. Safety and control devices and methods of inspection are under the purview of these directives. Norms for materials and construction, performance requirements and testing procedures are also included.

The harmonization of standards for tractors and agricultural machinery has received considerable attention by the EEC, with several directives already having been approved. A recently proposed Council directive seeks to establish rollover protection for tractor operators. This proposal attempts to reconcile the diverse needs of the nine countries into one standard for driver safety, suitable for the cold of Denmark and the heat of southern Italy where no enclosed cab is needed. The standards process has proved to be very time consuming. The fundamental goal is to increase mutual acceptance of traded products by creating one set of criteria for testing and certification.

Three new proposed Council directives have been submitted to regulate certain machinery, appliances, and equipment used on construction sites. Sound level requirements and methods of measurement along with procedures for obtaining EEC approval are detailed.

Information as to the status of EEC directives on industrial standards is available from the European Regional Affairs and Trade Regulations Staff, Office of International Marketing, Room 4002, U.S. Department of Commerce, Washington, D.C. 20230. Firms that believe these or any other specific standards are impeding their sales to the EEC should contact the Office of International Trade Policy (202-967-5233).

Canada Sets Deadlines For New Labeling Rules

The deadlines for compliance with Canada's new Consumer Packaging and Labeling Regulations are Sept. 1 for non-food products and March 1, 1976 for food products. The Canadian Department of Consumer and Corporate Affairs has published guidelines to assist manufacturers in ensuring that their cartons and labels will meet the new requirements regarding metric and bilingual (French and English) labeling and packaging.

Copies of the regulations and guidelines, and addresses and telephone numbers of Canadian Government agencies which are prepared to render advisory opinions on whether proposed labels and/or cartons meet requirements, and what changes must be made to comply, are available from any Commerce District Office.

Israel, Seeking Advanced Equipment, Looks For Reliability, Sophistication

U.S. sales to Israel should continue the rapid growth of the last few years. Lee Collins, Commercial Officer at the U.S. Embassy in Tel Aviv, reports that the market in Israel for capital goods will apparently not be adversely affected by recent austerity measures (see *Commerce Today*, Jan. 20, page 29).

The American share of the Israeli import market continues to decline. In order to reverse this trend, U.S. businesses will have to take steps to ensure faster delivery times, more effective representation, and better servicing of equipment once delivered. The high cost of transportation from the United States to Israel is a more difficult problem and means that lower valued U.S. goods compete at a great disadvantage.

The biennial Tel Aviv International Trade Fair is scheduled for May 20-27. The United States hopes to participate with a major exhibition of metalworking and metalfinishing equipment and computers and peripherals.

Any analysis of Israeli market potential should take the following factors into consideration: (1) increased Israeli requirements in defense and defense-related areas; (2) intensified Israeli interest in producing goods for export; (3) significant demand for goods associated with the absorption of greater numbers of new immigrants; and (4) continued interest in labor-saving and productivity-increasing equipment.

Thus, despite current economic difficulties, promising export opportunities exist, particularly in the following areas:

Chemical Processing: Plans for major expansions in the chemical and petrochemical industries are under way. Investments of about $500 million are planned over the coming 4-5 years, including equipment, engineering services and local costs. U.S. manufacturers should be able to take advantage of these opportunities, for Israelis generally believe that the reliability and sophistication of American products outweigh whatever price differentials may exist.

Among products that would enjoy maximum acceptance are: instrumentation in general, including monitoring, process and control instruments, valves, pumps, special pipes, generators, reactors, heat exchangers, ovens, crushers, mining and earthmoving equipment.

Electronics: The Israeli electronics industry is developing rapidly and is primarily U.S.-oriented. Products that would enjoy maximum acceptance if promoted include: Semiconductor and integrated circuit production equipment, including ion implantation equipment, vacuum pumps, soldering equipment, leak detectors, crystal growing equipment, dicing machines; printed circuit production equipment including N/C drilling machines, fusing and leveling machines, cleaning and drying equipment; wiring assembly and other interfacing equipment including automatic welding, strippers and wire-wrap systems; test equipment for production and inspection of electronic products including integrated circuit test equipment, transistor test equipment, resistor test equipment, microwave equipment, automatic test systems, relay test equipment, printed circuit board testers, environmental test chambers, etc.

Computers and Related Equipment: The United States is Israel's main source of computers and peripherals. The market for medium and large computers should continue to be dominated by U.S. equipment. Mini-computers, however, will have the greatest share of the market in Israel. With the present surge in military effort, it is expected that more money will be invested in automatic data processing equipment.

Process Control Instrumentation: Process control instrumentation (PCI) is relatively new to Israeli industry. With the tremendous expansion of the chemical and food industries, Collins expects that PCI will expand proportionately. This is due to the desire for automation to substitute for the chronic lack of manpower, and the need to export products to sophisticated markets. To maintain the advantage the United States has over competitors, it is necessary to induce new companies to enter this rapidly growing market, appoint good aggressive agents with servicing facilities, and, where feasible, enter into licensing agreements.

Avionics and Aviation Support Equipment: Although the Israeli market for this equipment is relatively limited, recent pronouncements by the Ministry of Transport indicate earnest intentions for expansion of existing facilities and serious planning for building two international airports, at Beersheva and Eilat. About $25 million will be invested yearly in realizing these plans.

Main end-users of avionics and support equipment are: Israel Aircraft Industries and its related companies; El Al, Israel's international airline; Civil Aviation Administration of Israel; Ben-Gurion International Airport; and Israel Defense Forces.

Pollution Control Instrumentation and Equipment: Controlling air and water pollution has recently become a priority of the Israeli Government. U.S. pollution control equipment is highly regarded. U.S. manufacturers have garnered about 50 percent of the contracts for Israel's National Sewage Project, for which over $100 million will be spent in the next 5-6 years.

The cement, glass and ceramics industries along with the petrochemical industries are major end-users of pollution control equipment. KOOR Industries Ltd. plans to invest $10 million for pollution control equipment in the next three years.

The market for air and water pollution control equipment is in its infancy. It is a growing market and one in which U.S. firms have an opportunity to get an increasing percentage of sales. The following is a list of some good sales possibilities: catalytic equipment, fitters, gas absorption equipment, scrubbers, and washers, aerators, electrostatic precipitators, centrifuges, demineralization and ion exchange equipment, flocculating and flow measurement analyzers.

Health Care Industries Equipment and Instrumentation: Israel's plans for construction of new hospitals and expansion of existing facilities give this category special importance. Products that might enjoy good sales include computer systems of EKG record keeping, respiratory equipment, pediatric equipment, dialysis apparatus, cryosurgical and laser surgical instruments, central station patient monitoring systems, portable resuscitators, blood gas analyzers, oscilloscopes, centrifuges and spectrometers.

Power Generating Equipment: Although the United States has not been an important supplier of small and medium-size generators, there is a significant demand for power generating equipment. The Israel Electric Corporation (IEC), Ltd., which supplies about 97 percent of electricity in Israel, projects a 10.4 percent annual growth rate until 1980. To meet this projected growth, IEC will invest at least an estimated $428 million by 1976. IEC is considering acquisition of one base load steam turbine generating unit annually in addition to a number of gas turbines. In making sales offers, American firms should stress quality advantages, technical versatility and delivery capability, and provide meaningful data to illustrate payout potential of a superior piece of equipment.

Metalworking and Metalfinishing Equipment: Metalworking and metalfinishing equipment enjoy good prospects in Israel. Increasing demands of defense industries make this category important. The United States has a marked edge in sophisticated equipment.

Israeli aircraft manufacturers for both military and civilian uses is increasing. Rocketry and shipbuilding (speedboats) are also on the high priority list, both for domestic defense needs and exports. There is a need for sophisticated equipment which the United States can provide, such as high accuracy machine tools, parts, ac-

cessories and auxiliary equipment, measuring, testing and inspection equipment, bending and forming machines, punching and shearing machines and N/C machine tools.

Building and Construction Supplies and Equipment: The building and construction industry is one of the most important sectors of the Israeli economy. Israel will continue to import time and labor-saving equipment. The market can absorb almost any degree of sophistication. Main U.S. competitors are West European countries, in dump trucks, concrete mixing equipment, earthmoving, cement manufacturing plants, cranes, and excavators. Products which would enjoy maximum acceptance can be summarized as follows: all products and equipment that can save time and labor; prefabricated buildings or sections; high-rise construction equipment; and earthmoving and excavation equipment.

Vietnam Moves To Attract Business, Become Economically Self-Sufficient

Vietnam continues to offer many opportunities to American businessmen, particularly for those who can see beyond present difficulties into the future.

The economy has been depressed for some time by a series of factors—declining real aid levels, world price inflation, softening export markets, as well as domestic political and military uncertainties. Moreover, Vietnam is passing through a difficult transition from a service-oriented and aid-dependent economy to one that is self-sufficient. Despite its current problems, Vietnam has considerable resources to achieve economic self-sufficiency, especially in its rich agricultural sector. The Vietnamese are an intelligent, hardworking people. Vietnam's forest, mineral, and marine resources are just barely being tapped. Offshore oil concessions could yet yield commercial quantities of oil.

This economic pattern provides attractive opportunities, continues James H. Ashida, Commercial Attache at the U.S. Embassy in Saigon, especially for the serious investor anxious to get in on the ground floor before the competition. To guide investors into industries it considers most desirable, the Government of Vietnam has established certain criteria. Among the most important of these criteria for new industries are the following: labor intensive, uses local raw materials, export oriented, and substitutes for imports.

Industries that meet these criteria, such as food processing, wood products, paper and pulp, basic chemicals, industrial tree crops, animal husbandry, offshore fishing, and luxury hotels, are accorded various incentives under the country's very liberal investment law.

The Vietnam Government is anxious to assist visiting American businessmen. A one-stop Investment Service Center located in downtown Saigon provides all the information needed for the investor. For those who want to buy Vietnamese products, the government's Export Development Center can be helpful in contacting Vietnamese suppliers and exporters. The National Corporation for Development of Industrial Zones has five major industrial parks where foreign investors may put up industrial plants under reasonable leasing arrangements. For those interested exclusively in producing for the export market, the Saigon Export Processing Zone provides a bonded duty-free, 300-acre area adjacent to the Port of Saigon. There such products as electronic components, clothing, leather goods, furniture, and cosmetics may be manufactured for the export market.

To improve the effectiveness of administration of its investment program, the government has created an autonomous agency called the Investment and Development Agency (IDA). Headed by an official with the rank of Director General, IDA will have more clout in obtaining the cooperation of other government agencies. The government has also established a Committee for Removal of Investment Obstacles to receive complaints from investors and to resolve problems immediately by cutting through red tape and inertia. Since the Committee has representatives from all government agencies concerned in any way with investments, its decisions are expected to be carried out promptly.

OPIC, Eximbank resume activity

An encouraging development for U.S. investors has been the resumption of investment insurance coverage for qualified projects by the Overseas Private Investment Corporation (OPIC) since Sept. 1. Interruption of this coverage in July 1971 had discouraged American investors. Already applications for insurance coverage of several projects are being processed by OPIC.

The U.S. Export-Import Bank has indicated interest in financing viable projects in Vietnam. The Vietnam Telecommunications Agency is planning to have a satellite earth station financed by an Eximbank loan.

The United States is the largest source of imports into Vietnam. In 1973, out of total imports into Vietnam of about $770 million, the U.S. share was approximately $418 million, or 54 percent. U.S. economic assistance to Vietnam, which finances part of U.S. exports, is currently on a continuing resolution basis.

Overall import licensing has declined sharply over the past year, due partly to restrictions on less essential goods, and partly to depressed consumer demand. Import demand may not pick up substantially until the latter half of 1975, after current high business inventories have been drawn down and economic activity picks up. In any event, the government will probably continue to conserve foreign exchange resources by limiting imports mainly to machinery and other intermediate goods essential for domestic production.

Some $50 million in French, Japanese, and Taiwanese loans may become available to local businessmen for purchases in 1975. Many of the eligible products for U.S. AID financing may be purchased from loans of other countries. On a price and quality basis, U.S. machinery has become very competitive with that offered by eligible countries under these loans. Moreover, adds Ashida, U.S. machinery has a reputation of being dependable and durable.

For FY75 at least, chemical fertilizer will be the largest U.S. item under the Commercial Import Program. Adequate quantities of fertilizer are essential if Vietnam is to become self-sufficient in food. More would be supplied by U.S. sources if it were not for the limitation imposed by Congress. Machinery of all kinds including electrical, agricultural and food processing will also be a major import item from the United States. Spare parts for machineries previously imported and installed will be a good prospect. Truck parts, especially components of gasoline and diesel engines, are very much in demand as older model trucks are repaired. Imports of bearings should continue strong in 1975.

Demand for agricultural machinery will be strong in selected areas. Tractors and implements such as planters, drills, spreaders, and harvesting machines have the best prospects. As new crops such as sugar cane and corn are more widely grown, specialized equipment for them will be needed. The market for pumps and small engines should continue firm.

Chemicals will be another major import item. In 1974 shortages prevented Vietnam from importing many chemicals. With the easing of the supply situation more chemicals will be available. Vietnam needs many basic chemicals such as sodium tripolyphosphate, sodium sulfate, asbestos, soda ash, caustic soda, aluminum sulfate, and carbon black. In plastic resins, high and low density polyethylenes also have a high demand.

Imports of American textile yarn will be lower than in previous years. Best pros-

pects for U.S. yarn are cotton sewing thread, polyester textured yarn, and polyester blended yarn. There is competition from Far Eastern countries to supply these and other yarns under Japanese loans at about 30 percent lower price than the comparable U.S. product.

Demand for iron and steel products is depressed because there is very little new construction in Vietnam. Prospects for 1975 are not promising.

Although the Vietnamese Government has tried to facilitate investments, businessmen may still encounter difficulties. They should learn to be patient in dealing with local officials and businessmen. Negotiations tend to be protracted, often because of failure to agree on seemingly minor points. Reaching an agreement can often be a frustrating experience. Like anywhere else, there is resistance to establishing what to Vietnamese officials are strange new patterns and precedents.

Ashida urges businessmen to include Saigon in their itineraries. Contrary to what has often been reported in the press, Saigon is a peaceful city. Life goes on there normally with no danger to visiting businessmen. There is little or no evidence of war damage in Saigon, a bustling city of over 3 million. There are three American banks—Bank of America, Chase Manhattan, and First National—eager to provide short and medium-term financing.

Studies Analyze Spanish House Appliance Market, Nuclear Power Industry

A growing Spanish market for household electrical appliances and expansion in that country's nuclear power industry are indicated by market studies recently prepared by Commerce's Office of International Marketing.

The Spanish market for large-size refrigerators, room air-conditioners, small electrical appliances and dishwashers has grown at an average rate of around 15 percent since 1971, but after 1975 the study indicates that most demand for initial purchase will have been satisfied and the market will be primarily one of replacement. In spite of this, the market for these products will continue to offer U.S. suppliers good export opportunities.

The nuclear power study notes that there are currently three nuclear plants operating in Spain, producing together some 3.2 percent of Spain's total energy. By 1980, the percentage of nuclear power as a source of Spain's overall energy requirements should rise to 30 percent, and by 1985, perhaps 50 percent.

For additional market information write Roger Turner, Office of International Marketing, Room 1008, U.S. Department of Commerce. Washington, D.C. 20230, phone 202-967-3957.

Demand Is Strong In Netherlands For Many Traditional U.S. Exports

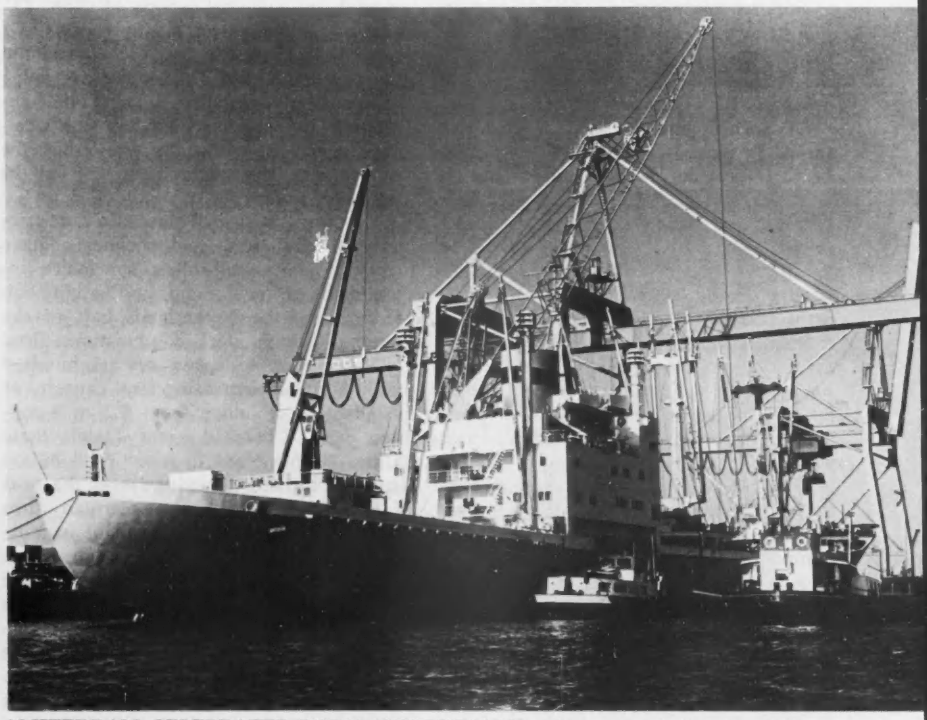
The Netherlands, with one of Europe's strongest economies and an expansionary budget planned for 1975, should continue to represent a substantial market for American exports, according to Ralph D. Griffin, Commercial Officer at the U.S. Embassy in The Hague. While it seems unlikely that the rapid sales pace of 1974 can be maintained through 1975, demand for much of what the United States sells there should remain strong.

U.S. exports to Holland in 1974 exceeded $4 billion, more than $1.5 billion above the total for 1973, maintaining the United States as the Netherlands' third largest supplier of imports. The U.S. market share of 10.5 percent, however, may slip a bit in 1975.

The Netherlands is almost alone in Europe in having a sizable balance of payments surplus, thanks in large part to increasingly valuable exports of Dutch natural gas. Buoyed by these gas revenues and concerned over signs of a slowdown in the economy, the Dutch Government intends to follow an expansionary fiscal policy in 1975. Total government expenditures are slated to go up almost 25 percent above the 1974 level, taxes and welfare deductions are to be substantially reduced for lower income groups, accelerated deductions are to be allowed for business investment and the housing industry is to be given a massive infusion of funds. These measures are expected to ensure a consumer spending increase of 3.5 percent in 1975, while investment by business should rise 6 percent. It should be noted, however, that if the economies of Holland's major trading partners suffer stronger declines than now anticipated, these figures would have to be revised.

The United States is fortunate in that much of what it now exports to Holland is precisely in product lines of strongest demand. The United States has traditionally been an exporter to Holland of raw materials, e.g., agricultural commodities and chemicals, and sophisticated capital goods such as transportation equipment, machinery, and electronic equipment. The Dutch food industry has shown remarkable growth and the forecast is favorable. Likewise, the outlook for chemicals is good. U.S. capital goods exports should benefit from the Dutch Government's expansionary budget for 1975, but in some areas, such as transportation equipment, i.e., jet aircraft, the outlook is not so good.

One of the biggest problems for the U.S. exporter will be to meet what will undoubtedly be greatly intensified competition from Holland's other trading



AMSTERDAM CELEBRATES 700TH ANNIVERSARY—*Conventional ships have discovered the container terminal at Amsterdam for handling large semi-bulk cargoes; here, the Gooiland, Koninklijke Hollandse Lloyd loads a cargo for Brazil at the busy transit port.*

partners, many of whom will be seeking export sales with a special determination, spurred by deteriorating balance of payment situations in their own countries. In this time of economic uncertainty, suppliers close at hand will often look like a safer bet than those across the Atlantic, and it will be increasingly important for U.S. exporters to demonstrate that export customers will be given equal treatment with domestic ones.

American suppliers have many things going for them in this market. The dollar has declined sharply in value over the past several months as compared with the guilder, enabling sellers of already established U.S. goods to resist inflationary price increases and suppliers of new goods to offer especially attractive prices. Dutch importers and dealers are well aware that revised exchange rates have made U.S. goods more competitive and many are anxious to find specific American products offering new or increased sales promise in the Netherlands.

There were substantial rises in the importation of many U.S. consumer goods during 1974, especially cameras, clothing, motor and sail boats, household electric appliances, electric hand tools, automobiles and pharmaceuticals. As a result of a decline in the housing industry, there should be a swelling market for do-it-yourself products such as floor and ceiling coverings, hardware supplies and other products designed to make present living quarters more comfortable.

Imports of American farm products, industrial raw materials, machinery and many other traditional U.S. exports to the Netherlands are at record levels, with prospects for continued substantial sales.

Of special interest to U.S. exporters should be opportunities offered by a number of projects being carried out or planned by the Netherlands Government. For example, construction of a second international airport has been proposed, to begin around 1977 with operations starting in the early 1980s. Such a project would offer a range of opportunities.

Pollution control in its many different aspects is another area of broad opportunity. The government is at present building 38 sewage plants worth an estimated $175 million along major waterways.

The Queen, in her annual speech from the throne, announced that this year will see the presentation to Parliament of a number of bills in the pollution control area; a Groundwater Act, a Soil Protection Act, a Waste Products Act, as well as a program for controlling surface water and air pollution. These bills should increase already strong demand for pollution monitoring and control equipment. A U.S. Environmental Control Instruments and Equipment Trade Mission is scheduled for April, and Commerce plans a Pollution Control Equipment and Instrumentation Catalog Show at the Aquatech Exhibition in Amsterdam in September.

The Dutch Government is also moving to insure adequate supplies of power in the 1980s. A master plan on power needs, the White Paper on Energy, which the government recently published, calls for construction of three nuclear power plants of 1,000 megawatts each to begin in the late 1970s. In addition, there is to be increased emphasis on development of Netherland's on and offshore oil and gas resources. This development should ensure growing demand for U.S. oil and gas exploration, production and transmission equipment. At a recent Commerce-sponsored catalog show at the Petrotech Oil and Gas Exhibition in Amsterdam, the catalogs of 149 U.S. oil and gas equipment manufacturers attracted great interest from over 750 Dutch visitors to the U.S. booth. Products of greatest interest were valves and pumps, and the only complaints heard from visitors were that U.S. manufacturers seemed to be unable to produce enough of these products to meet Dutch demand. Several large Dutch conglomerates are setting up subsidiaries to service the North Sea offshore drilling industry and are actively looking for U.S. firms in the oil and gas equipment field that wish to be represented locally.

Another field offering excellent prospects is cable television. The government is studying technical aspects of cable TV, and may soon select a single cable TV transmission system for use throughout the country. Cable TV systems are being independently installed in several communities by suppliers confident that whatever system is eventually chosen by the government, their equipment will still be permitted to operate.

Key firms in two of the basic industries of Holland, steel and chemicals, have recently announced plans for major investments in new plant and equipment. Hoogovens, the Netherlands half of the German/Dutch steel combination, Estel N.V., expects to spend several hundred million dollars increasing steel capacity of its plant in Ijmuiden from 5.2 to 8 million tons. Chemical giant Dutch State Mines (DSM) plans to invest $1.8 billion in new production facilities over the next 5 years. Likewise, the German firm Moechst is building a new plant in Vlissingen in the south of Holland.

The foregoing is a sampling of some of the expansion planning that is being done in the Netherlands which will provide important business opportunities for both domestic and foreign suppliers. Thanks to the cheaper dollar, American suppliers are in good position to get a handsome share of this new business. These same influences will also be helping to sell the wide range of raw, intermediate and finished American products that the Netherlands has been importing from the United States for many years: soybeans, corn, coal, organic chemicals, plastics, paper, textiles, machinery of many kinds and hundreds of other diverse items.

The Dutch market has a remarkable capacity to absorb American products—from raw materials like soybeans to the most advanced and costly high technology equipment. It is also a strong and growing market for U.S. services such as engineering, banking, acounting and insurance. The Dutch spend more per capita on imports from the United States than any other country outside the Western Hemisphere. This makes it a receptive market for U.S. suppliers and an easy one for new-to-export firms to break into. The distributor community and the marketing infrastructure (banks, forwarders, carriers, wholesalers, etc.) are highly sophisticated, hungry for new business, and accustomed to U.S. business practices.

The Netherlands is a nation of international traders who market American and other foreign products along with their own in literally all corners of the globe. This little country has always had a share of world trade way out of proportion to its size. Up to a third of U.S. exports to that country go on to other markets. Most of this onward business is through Rotterdam which, as the largest and perhaps best located port in the world, is able to handle cargo of any type and quantity for the rich EEC market of over 200 million people living within a 200-mile radius.

These factors should assure a good place for American suppliers in the Dutch market over coming years. To be sure, the present state of the world economy will inevitably be forcing some changes on the Netherlands economy and on its pattern of import demand. This is a period of considerable business uncertainty and that in itself tends to slow down procurement decisions, particularly those involving outlays for capital equipment in industries where a slackening of demand is in evidence. But Griffin believes the present situation should create just as many opportunities for U.S. suppliers to exploit as it may eliminate. Products that promote efficiency of production, lessen the use of scarce energy, and enhance a life style that will be geared increasingly to a more moderate use of resources, will find ready acceptance.

France Bans Cyclamates

According to officials of the French Agriculture Ministry, the government has banned the use of cyclamates in food products and has no current intention of rescinding the order.

Foreign Support, Rising Confidence Set Stage For Pakistani Comeback

In the economic sphere, 1974 was not a good year for Pakistan. Buffeted by a decline in the world market for cotton and cotton textiles, and parched by a severe drought, Pakistan's foreign exchange earnings fell and import costs rose. Aggravating the situation was the mid-year tunnel failure at Tarbela Dam.

Despite these and other problems, recent developments cited by L. Stuart Allan, Commercial Officer at the American Consulate General in Karachi, leave room for optimism about 1975. Foremost are the continued support of developed nations in Pakistan's development efforts. A $650 million rescheduling of Pakistan's long-term debt provides much needed relief to the hard-pressed, newly divided country. Even more encouraging is the increasing financial assistance flowing into Pakistan from newly-rich Muslim neighbors. Most prominent among these have been Iran, with grants and loans exceeding $600 million, and Abu Dhabi and Saudi Arabia, which are expected to commit funds for various projects totaling as much as $100 million each. Additional large amounts of development aid are expected to come from other countries in the Middle East.

Another major bright spot

The other major bright spot cited by Allan is a possible resurgence of private investment after a three-year slump. The present government, which was elected on an avowedly socialist platform, now proclaims that all necessary reforms have been completed and that no further nationalization of industries is contemplated. Over the past several months the Pakistani private sector has been encouraged to come forward once again and take an active part in industrial development. A major cabinet reshuffle in October included replacement of the Minister of Finance, who was unpopular with private businessmen, by an experienced cabinet minister considered sympathetic to the private sector. Several other "pro-business" ministers were also included in the new cabinet.

In addition, Prime Minister Bhutto has undertaken concrete acts to encourage the private sector to resume investments. In a frank meeting with several hundred businessmen on Oct. 23, Bhutto urged that the private sector come forward with new investments, stating: "We want you to be happier, richer and we will be proud of your contributions to building a prosperous economy for Pakistan."

Other developments include a new labor law designed to restrict undisciplined union activity and spur industrial productivity, formation of an economic advisory council to the Prime Minister composed of leading Pakistani businessmen and industrialists, and indication of possible softening in the present government policy which restricts investment in 10 basic industries to the public sector. Taken together, all these developments have caused an optimism not seen in years to emerge in the private business community. Although business confidence was at a very low ebb, it may begin to return to a level sufficient for significant investments to take place.

As investment activity expands, so does the potential market for American goods and services. The most promising field for American exports is capital machinery and equipment, which Pakistan must continue to import in order to maintain the pace of industrial development. Prospects for imports of earthmoving and general construction machinery and equipment appear particularly bright in view of numerous construction projects and development efforts throughout the country. Karachi businessmen representing American firms recently complained that delay in filling orders is currently the major inhibiting factor in selling American earthmoving and construction equipment. According to these local traders, the market demand and sufficient financing are readily available. Members of the recent U.S. earthmoving, mining and construction equipment specialized trade mission to Pakistan project sales of $19 million over the next 12 months—a concrete indication of market possibilities.

Despite the recent problems in the textile industry, prospects for sales of textile equipment over the long term continue to be good. Over the short to medium term, imports of spinning equipment are likely to be curtailed due to the current glut of cotton yarn on the world market. However, the beginnings of an upturn in this sector and the fact that mills which failed during the period of difficulty were those with the oldest machinery, may stimulate some near term modernization. Demand for weaving and finishing equipment over the short and medium term is expected to continue strong, as existing spinning units attempt to integrate production and move into fininshed and unfinished cloth, which finds a better market abroad. American suppliers of textile machinery have become significantly more competitive in the past 18 months in a market previously dominated by Japanese and European suppliers.

Good sales prospects also exist for railroad equipment and cement machinery. Locomotives and component parts for rolling stock also have a sizable market in Pakistan over the medium term as indicated by the fact that the P.W.R., the National Railroad, recently purchased 68 locomotives from American suppliers. Purchase of 180 additional locomotives is planned over the next five years. Major sales opportunities exist in the cement industry, which has ambitious plans to double production capacity by 1980, including one large plant to be financed by Iran. Foreign exchange costs of the cement expansion program are estimated at $115 million. The Water and Power Development Authority has extensive expansion projects and plans to spend over $100 million in foreign exchange in each of the coming five years, primarily for power generation and transmission equipment.

Communications equipment, including radio broadcasting, microwave stations and systems for security forces as well as general equipment including telephone exchanges, switchboards, etc., is expected to have a good market over the medium term. A $136 million credit from the World Bank will finance an expansion of the Pakistani telecommunications network, providing welcome foreign exchange for this important area.

The tourist industry in Pakistan has long been struggling with inadequate facilities and some improvements are finally being undertaken, with several major international hotels under construction and more planned. Within the coming two to three years Hilton, Holiday Inn, Sheraton and Hyatt are all expected to be operating one or more major hotels in Pakistan to complement the meager existing chain of first-class hotels. In addition, the government-owned Pakistan Tourist Development Corporation has commissioned a study due in mid-1975 by Citicorp Realty

PAKISTAN'S PORT PLANS — *Aftab Alam (left), engineer-in-chief of Karachi Port Trust, points out port development plans to Stuart Allan, author of this article. The American engineering firm Frederick R. Harris has received a consultancy contract for design of a major new oil tanker berth at the port.*

Consultants of New York to determine how to modernize and update its chain of smaller first-class hotels in Pakistan. Purchase decisions on hotel and restaurant equipment are expected to be made soon.

Several major projects being financed by international lending agencies are in final stages of design and procurement and offer excellent prospects for significant cash sales by American suppliers. Among these projects are an expansion program for the natural gas distribution system in northern Pakistan, expansion of the Port of Karachi financed by a $34 million loan from the World Bank, construction of a new bulk cargo port which is expected to be financed by a major foreign currency loan from the Asian Development Bank, the Pak-Arab Fertilizer Plant at Multan which is expected to have a foreign exchange cost in excess of $80 million to be covered by loans from the Asian Development Bank ($37 million) and the IBRD ($35 million) and equity participation by the government of Abu Dhabi (over $11 million). Other major projects, including a new oil pipeline and refinery and an 800-mile cross country superhighway, are in the preliminary planning stage but offer prospects of sizable sales over the long term.

Although the Pakistani market does not have the potential of some of the large and more wealthy neighboring countries, it is nonetheless a significant area for American sales. Imports into Pakistan in FY75 will run between $1.7 and $2.4 billion, with the bulk coming from free foreign exchange and untied aid sources.

Representation in Pakistan by an aggressive, technically competent local agent is the sine qua non for successful marketing. This is especially true in view of economic reforms over the past two years which have placed most purchasing decisions in the hands of government and semi-government agencies, which generally procure on the basis of international tenders. In addition, all purchases financed by multilateral institutions utilize international tender procedures. Many such tenders have short lead times and require the presence of an agent in Pakistan, if for nothing else than to obtain tender documents, file necessary registration forms, etc.

Allan advises that sales efforts by local agents be supplemented by occasional visits by top executives of American manufacturing firms. Such visits indicate the interest and concern the U.S. supplier places on potential Pakistani customers. In the past such visits have led to major export sales. Furthermore, such visits need not be burdensome to American executives since Pakistan is not distant from the growing markets in Iran and the Persian Gulf countries.

International Business Reports

Netherlands-American Trade Directory, 1974-75. 540pp. $40 surface, $45 airmail.
Contains names, addresses and other particulars of some 950 American firms operating in the Netherlands through subsidiaries, licensees or joint ventures, and of more than 5,500 American firms selling to the Netherlands through representatives, agents and distributors. Four major sections include: American firms in the Netherlands—names, addresses, products or services offered, and Dutch business associates; Dutch firms, and U.S. associates—company name, address, telephone, cable or telex number, name of chief executive, products manufactured or imported; listings by kind of business activity; listing of all Chamber members.

Write: American Chamber of Commerce in the Netherlands, Carnegieplein 5, The Hague.

World Bank Atlas: Population, Per Capita Product and Growth Rates. 22pp. Free.
A total of 189 countries and territories are listed. Contents include: population and average annual growth rates; per capita gross national product at market prices—amount and average annual growth rates; population, GNP at market prices and GNP per capita—by income group (global map); GNP per capita, GNP at market prices and population—by major regions (proportional map); population, GNP at market prices, GNP per capita, and average annual growth rates, by region.

Write: World Bank, 1818 H St., NW., Washington, D.C. 20433.

Port of New York Scheduled Steamship Services Directory. 1975. 21pp. Free.
This directory has been issued to meet needs of exporters, importers, freight forwarders and other business organizations and government agencies moving cargo via the New York-New Jersey Port. Published annually since 1955, it lists names, addresses, telephone numbers and pier locations for all steamship lines and agents offering regularly scheduled cargo, passenger and cruise services from the Port of New York on international, intercoastal and coastwise routes, and a listing of active steamship piers, together with lines, terminal operators and railroads serving them. An alphabetical cross index of more than 350 ports enables users of the directory to determine which steamship lines provide services between the bi-state New York-New Jersey Port and specific overseas ports.

Write: Port Promotion Division, The Port Authority of New York and New Jersey, Room 63S, One World Trade Center, New York, N.Y. 10048.

China, the USSR and Eastern Europe: A U.S. Trade Perspective. Edited by John K. Ryans, Jr., Anant R. Negandhi and James C. Baker. 196pp. $7.95.
Major problems touched on include: political questions; credit; selecting from the limited exportable items of communist countries; the impact of U.S. products in the economies of these countries; how East-West trade will affect the world order; and the question of most favored nation status. Viewpoints range from those of scholars of international business to those of businessmen already experienced in these fields. Approaches range from analytical and statistical to personal experience and case history.

Write: Kent State University Press, Kent, Ohio 44240.

Calendar For World Traders

March 11 — Louisville — Kentuckiana World Commerce Council meeting, Holiday Inn Brownsboro East.

March 20—Cleveland—Cleveland World Trade Assn.'s 30th Annual World Trade Conference. Sponsors: Cleveland Cuyahoga Cy. Port Authority, Rotary Club of Cleveland, Cleveland Commerce District Office.

March 20-21—New York—Briefing on How to Make Maximum Use of the Domestic International Sales Corp. (DISC), American Management Assn.

March 24-26—New York—Seminar on the Andean Common Market, American Management Assn. Thomas K. Brewer of Commerce's Office of International Marketing will speak.

March 25—New York—58th Annual Conference of the International Executives Assn., Waldorf-Astoria. Theme will be Building Global Business in a Climate of Crisis.

March 25—Washington, D.C. — Conference on business prospects in Latin America. Speakers include Bernard J. Cahill, director of Commerce's Latin America Division. For information, Deborah Nelson, 202-785-6800.

March 26-27—New York—Seminar on Fundamentals of Foreign Exchange, World Trade Institute.

April 1—New York—FCIB Round Table Conference on International Finance, Credit, Collection and Exchange Problems, Summit Hotel.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 4219, U.S. Department of Commerce, Washington, D.C. 20230.

U.S. Promotions Abroad

Communications Equipment Catalog Exhibit. Beirut. April. Lebanon offers a potential market for communications equipment of more than $10 million. Increased buying is expected in the area of telephone equipment. Robert E. Peterson, 202-967-3973.

Electronics Production and Test Equipment Tandem Exhibitions. U.S. Trade Center, Stockholm, April 7-11, U.S. Trade Center, London, April 15-18. Two consecutive exhibitions directed primarily to producers of electronic components in Sweden and the United Kingdom are now being offered to U.S. manufacturers of nonferrous metal mill shapes; production equipment for semiconductor integrated circuits, printed circuits, wiring assembly and other components; test instruments and equipment for production and/or inspection; parts and devices and passive components; and piezoelectric crystals including mounted filters and parts. Maurice Peter, 202-967-4256.

Health Care Industries Catalog Exhibit. Ethiopia and Kenya. April 7-18. Development plans for these two countries call for expenditures of over $23 million for various health programs in a wide variety of areas. Major emphasis is on construction of buildings and purchase of equipment for health centers and health stations; upgrading present facilities; improvement of hospital services, especially in the areas of surgery, x-rays, safe water, sanitation, dentistry and some in the area of cardiology. Money has also been allocated for special projects to combat communicable diseases and to improve public health. Robert E. Peterson, 202-967-3973.

Building Construction Materials and Equipment Show and Sell Mission. Jidda, Riyadh and Dhahran. April 7-18. Commerce is offering a uniquely integrated approach to development of the burgeoning Saudi Arabian housing and construction market. The 20-25 participating firms will provide services covering the full range of urban development including contractors, community development firms, building manufacturers and material suppliers, engineering, design and architectural firms, and manufacturers of hand and power tools as well as light construction equipment. Franc Manzolillo, 202-967-5767.

Railway Equipment Trade Mission to Nigeria, Zaire, Zambia, Botswana. April 9-May 3. Railroad rolling stock and equipment including maintenance, repair, service equipment, signaling, communications and electronics are among major categories of products and services urgently required to service, expand and build railroad systems. Herb Socks, 202-967-3846.

Shipbuilding/Port Construction & Maintenance Trade Mission. Iran & Pakistan. April 11-22. The Government of Iran is planning development of large commercial and military ports and is in the market for small boats. A maintenance equipment market exists, but will be considerably larger after implementation of the ports' expansion. In Pakistan, the Qasim and Karachi Port Trust is moving ahead with plans. E. Lee Carteron, 202-967-2973/4.

Mining Equipment and Services Trade Mission to Poland, Czechoslovakia, and Romania. April 13-26. Significant marketing opportunities are expected to result from this Mission. Participating U.S. companies will be recruited from the fields of mining engineering services, mine safety equipment, and strip mining apparatus and deep mining tools and equipment. James V. Brennan, 202-967-4918.

Hospital and Medical Equipment Catalog Exhibit at MEDICA '75. Utrecht, The Netherlands. April 14-18. The Dutch market for medical and hospital equipment is expected to reach $31 million by 1976, an increase of more than 60 percent over 1971's $19 million. Dutch medical institutions rely heavily on imports for medical, dental, and surgical equipment, medical instrumentation, veterinary instruments. Robert Peterson, 202-967-3973.

Franchising Trade Mission. Tokyo, Osaka and Fukuoka, Japan. April 14-25. Japan's rapidly growing economy favors the extension of franchising activities in the categories of fast food restaurants, automobile products and services, laundry and dry-cleaning services, hotels, recreation, and retailing. Call Ed Oliver, 202-967-3746.

Educational Training Aids & Audio Visual Equipment Catalog Exhibition. Singapore and Malaysia. April 15-23. This event is designed to assist U.S. industry in developing and expanding sales in the Far East market. Exporters of this type of equipment have a growing market in Singapore; imports increased 74 percent over the 1972 level to $41.8 million in 1973. Overseas suppliers furnish approximately 80 percent of Malaysia's requirements for educational training aids and audio visual equipment. Robert E. Peterson, 202-967-3973.

Road Construction Technology Seminar to Ivory Coast, Nigeria and Zambia. April 21-May 28. Market studies just completed in these oil and mineral rich countries point to extensive and massive transportation construction outlays. Equipment imports alone will reach $310 million in the 1975-1976 period. Fred E. Crosley, Jr., 202-967-5285.

Pollution Control Equipment. Frankfurt Trade Center. April 22-25. American manufacturers and suppliers of equipment for control of air and water pollution, noise abatement, sewage treatment and solid waste disposal have an excellent opportunity. In 1974 and 1975, the Federal Republic's annual investment in pollution abatement is anticipated at about $2.6 billion and $3.1 billion, respectively. Bill Dawson, 202-967-4941.

U.S. Exhibition, Casablanca International Fair. April 24-May 11. A U.S. exhibition sponsored by the American Embassy will feature a variety of products and services aimed at the Moroccan market. Apply directly to: Joseph Fisher, Commercial Section, American Consulate General, B.P. 675, No. 8, Bd. Moulay Youssef, Casablanca. Limited background information is available from Robert Vigneault, 202-967-4304, or Laron Jenson, 202-967-5737.

Plastics Processing Equipment Catalog Show. Buenos Aires. May. The Argentine plastics processing industry consists of some 1,500 firms. Imports of equipment total about $1.2 million per year and are expected to grow at about 15 percent annually during the next five years. Robert E. Peterson, 202-967-3973.

Hospital/Medical Equipment (JEEP). U.S. Trade Center, Sydney. May 5-7. The medical equipment industry is one of the fastest growing markets for U.S. firms. Increased government spending in addition to monetary revaluations, make U.S. products very competitive, and most of Australia's requirements must be imported. M. R. Sherar, 317-633-4537.

U.S. Computers for Industry Trade Mission to Hong Kong, Taiwan, and Singapore. May 8-22. Market research has identified a range of computers and related products which offer sales potentials in these important markets. Ed Oliver, 202-967-3746.

Telecommunications Equipment and Systems Exhibition, U.S. Trade Center, London. May 12-16. The United Kingdom is one of the largest primary and intermediate markets in the world for telecommunications equipment, subassemblies, and systems. The British market for telecommunications equipment in 1973 amounted to $1.1 billion; imports totaled $218.8 million—$39.1 million from the U.S. Call I. D. Nathanson, 202-967-3355.

Biomedical Equipment Exhibition. U.S. Trade Center, Mexico City. May 12-16. The Mexican market for imported biomedical equipment is expected to reach $21 million by 1976. This market is wide open to aggressive U.S. companies with interesting new products to sell. Mary Wiening, 202-967-5037.

Analytical Instruments for Science and Industry Exhibition. U.S. Trade Center, Tokyo. May 12-16. For 1974, the Japanese market for automated and computer controlled analytical instruments was nearly $50 million, some 37 percent of U.S. origin. The expected value of $78 million by 1976 represents an annual average rate of growth of 25 percent. Dan Chambers, 202-967-5751.

Children's Fashions and Toys and Games (JEEPS). U.S. Trade Center, Paris. May 13-15. Sales prospects for U.S. sportswear are likely to get better as youth-led trends towards casual clothing continue. Interest is especially strong for styles that project the American look. An increased affluence and a generous attitude towards youth are factors which account for a surge in the market in France for toys and games. Contact nearest Commerce District Office or Anita Brownstein, 202-967-4504.

Airconditioning and Refrigeration Equip-

ment Exhibition. Frankfurt Trade Center. May 13-16. This event will feature equipment for the commercial, industrial and residential markets. The current German airconditioning equipment market is estimated at about $301 million, of which about 22.5 percent or $68 million is manufactured in the U.S. By 1976 the market is expected to be about $458 million, of which $91.7 million will come from the U.S. The refrigeration market is expected to increase 5-8 percent annually. Don Schmadel, 202-967-2177.

Construction Equipment and Building Materials Exhibition. Milan Trade Center. May 16-20. The Italian construction industry ranks high internationally, with operations throughout the Mediterranean area, Africa, and elsewhere. U.S. products in many categories are now very competitive due to currency realignments and higher inflation levels in competing countries. This event runs concurrent with Cemento Expo, International Exhibition of the concrete industry at the same Fairgrounds. Peter Wilson, 202-967-2434.

Ship and Boatbuilding and Marine Equipment Catalog Exhibit. UAE, Iraq and Oman. May 18-26. Feasibility studies are being conducted and up-to-date equipment, more modern small ports, and improved communications will likely be a part of development. The present small U.S. share of imports of boats and marine equipment should grow in volume with increased modernization. Call Robert E. Peterson, 202-967-3973.

Textile Equipment and Cotton Ginning Machinery Trade Mission to Morocco, Egypt and Syria. May 19-June 3. These nations have plans to invest over $400 million in expansion of textile and cotton ginning industries between 1974 and 1977, over half representing foreign exchange expenditures. Morocco's Export Investment Code provides special incentives to new investment, which may be 100 percent foreign-owned in the textile industry and in industries ancillary to textile mills. Egypt is planning to invest nearly $90 million for imported cotton ginning machinery in the short-term. Frederick J. Gaynor, 202-967-3741.

Hotel and Restaurant Equipment Exhibition. Stockholm Trade Center. May 26-30. Demand for U.S. equipment, especially that incorporating labor-saving features, is strong throughout the Scandinavian area—Denmark, Finland, and in particular Norway and Sweden, which are benefiting from high levels of economic activity. A complementary exhibition, sponsored by the U.S. Department of Agriculture, will feature processed food for the hotel, restaurant and institutional trade. William Beiring, 202-967-3276.

Technical Sales Seminar on Advanced Metalworking and Metal Parts Finishing Equipment. Yugoslavia, Austria and Spain. May 26-June 14. In response to strong and growing demand for American metalworking and metal parts finishing equipment in these countries, Commerce will arrange a seminar for seven American manufacturers. There will be seminar presentations in Dubrovnik, Yugoslavia; Vienna; and Bilbao, Spain, to discuss the state of the art in the U.S. and hold meetings with key managerial and technical personnel and discussions with purchasing authorities. W. Bradley Tyrrell, 202-967-5285.

Business Equipment Catalog Exhibition. Lagos. June. A sustained rate of growth in sales of business equipment and systems should occur as Nigeria proceeds with numerous industrial and infrastructure developments made possible by increased oil revenue. Consumption of business equipment and systems is estimated at $9 million for FY 1975 and $12 to $15 million per year for FY 1976 and 1977. There is no local production of business equipment. U.S. exports of business equipment to Nigeria will grow an estimated 11 percent annually. Robert E. Peterson, 202-967-3973.

Recreation and Leisure Equipment Exhibits. Paris Trade Center, June 2-5; Frankfurt Trade Center, June 10-13. The two leading markets of Europe—France and Germany—offer unusual opportunities for American manufacturers of sports items, photographic equipment and musical instruments. A leisure boom has occurred in both these countries as a result of the long-term economic development that has taken place. Increased incomes—the willingness to spend it—more free time from work—all are factors which are stimulating French and Germans to spend more on leisure products. Myra Triplett, 202-967-5381.

Electronic Industry Production and Test Equipment Exhibition. U.S. Trade Center, Tokyo. June 2-6. The market in Japan for this type equipment is buoyed by the rapidly expanding markets, domestically and worldwide, for the massive output of Japanese electronic goods—expected to reach $20 billion by 1975—and the requirements of Japanese electronic manufacturers for production and test equipment—estimated to reach $215 million by 1977, up 40 percent from 1973. In 1975 the Japanese Government intends to remove any restrictions on investments and imports of this equipment. Don McDonough, 202-967-2461.

Commercial and Industrial Security Equipment. U.S. Trade Center, London. June 2-6. Fire and crime security is one of the United Kingdom's important growth markets. The market for security devices is $320 million, split nearly evenly between fire and crime security. U.S. price levels for security equipment are above those for equivalent British products, but where products are suitable for a specific application this is unlikely to inhibit sales. Thus the United States is expected to continue as the leading supplier of imports in this field. Jim Lamont, 202-967-4543.

Minicomputers, Terminals and Peripherals Exhibition. Milan Trade Center. June 3-7. The minicomputer segment is the most dynamic growth area of the computer industry. Estimates for 1976 forecast an increase of 111 percent over Italy's 1973 import figure. Computer installations are now being better matched to the intended function. The market for terminals and peripherals is also rapidly expanding, since they are used both in new systems and in upgrading existing computer installations. Mara Yachnin, 202-967-4975.

Food Processing and Packaging Exhibition. U.S. Trade Center, Tehran. June 8-12. Iran is one of the fastest growing markets for capital goods. U.S. exports more than doubled in 1974 to a total of $1.6 billion. More than $4 billion has been allocated for 1973-78 for the means to increase food production in Iran. During this period the market for food processing and packaging equipment is expected to grow from $10.9 million to $45 million. Don Ryan, 202-967-4652.

Industrial Process Controls Exhibition. U.S. Trade Center for Scandinavia in Stockholm. June 9-13. U.S. manufacturers of industrial process controls will find a highly receptive market in the Scandinavian countries, where demand is projected to increase substantially in the next four years. High labor costs, expanding activity in petroleum and chemical industries, and buoyant export demand for paper products are spurring investments in advanced process control instrumentation and accessory equipment. The 4-country market, supplied mainly by imports, is currently estimated at over $100 million with a 15-20 percent annual growth rate foreseen through 1978. Robert J. Blake, 202-967-2797.

Telecommunications Technology Seminar to Morocco, Algeria and Tunisia. June 9-20. Over $178 million will be allocated by governments of these countries for construction, expansion and modernization of telecommunications systems, according to current development plans. These countries have a preference for American technology and equipment. Emphasis will be on telecommunications and data transmission, including satellite communications, microwave transmission, data terminals and communications, mobile radio, and closed circuit and cable TV systems. Fred E. Crosley, Jr., 202-967-5285.

Do-It-Yourself Products (JEEPS). Paris Trade Center, June 11-13. Frankfurt Trade Center, June 18-20. The markets in France and Germany offer bright prospects to U.S. manufacturers and suppliers of do-it-yourself products such as portable power tools, hand tools, wall coverings, home remodeling and repair materials, lawn and garden equipment and other related equipment and products. Germany, with the lowest inflation in Europe, is the continent's wealthiest country and best customer for U.S. products. France, although having a high inflation rate, has had a larger real growth rate than Germany and has doubled its standard of living since World War II. The French and the Germans now have more money to spend and more leisure time. A continuing increase in demand for do-it-yourself products is foreseen. Contact nearest U.S. Department of Commerce District Office.

Construction, Building and Mining Equipment Catalog Exhibit at the 16th Annual Lisbon International Industrial Exposition. June 11-22. In order to modernize its economy and raise living standards, Portugal is aware that it must increase imports of capital goods. Major projects under consideration will require a wide range of machinery and equipment for heavy construction, mining, and housing including hardware and small hand tools. Robert E. Peterson, 202-967-3973.

Pollution Control Exhibition. U.S. Trade Center, Mexico City. June 16-20. The present Mexican Administration has made pollution control one of its highest priority programs. This federally coordinated pollution control program has increased demand for necessary equipment beyond earlier projected programs. Phil Christenson, 202-967-5038.

U.S. Recreation and Sports Equipment/Toys and Games (JEEP). Sydney Trade Center. June 17-19. Australian imports of these products totaled $120 million in 1973 and are forecast to grow by 10 to 15 percent annually. U.S. exporters are price competitive in many areas and enjoy the advantages of originality in design, quality, and variety in product lines. Inflation was 14 percent in Australia in 1973, 20 percent in 1974. Tariffs have been reduced, English competitors are losing tariff preferences, and imports are surging. T. Sunohara, 206-442-5615.

Household Textile Products (JEEP). Milan Trade Center. June 17-19. With a population of over 55 million and a relatively high per capita income of $2,550, Italy constitutes a large market for household textile products. Department store buyers have found that American items have strong appeal on the Italian market. Only U.S. firms not currently selling in Italy may participate. Ann Corro, 202-967-2434.

Kinshasa International Fair (FIKIN). June 21-July 6. A U.S. exhibition sponsored by the American Embassy will feature a variety of products and services aimed at the expanding Zairian market. Apply directly to: Ollie Ellison, Economic/Commercial Section, Am Embassy, Kinshasa, APO New York, N.Y. 09662. For limited background information, Robert Vigneault, 202-967-4304.

Air and Water Pollution Control Exhibition. U.S. Trade Center, Mexico City. June 23-27. The Mexican Government has passed stringent laws to control air and water pollution. The enterprising U.S. manufacturer who vigorously pursues this market will find it a gold mine. Phil Christenson, 202-967-5038.

Energy Systems Exhibition. U.S. Trade Center, Taipei. June 23-27. Continued industrial expansion on Taiwan, particularly in heavy and chemical industries, offers many opportunities for sale of pumps, valves, compressors, standby power generation systems, switches, transformers, and circuit breakers. Most must be imported; imports, over $50 million in 1973, are projected to near $80 million in 1976. Carol Murray, 202-967-2215.

Hospital and Medical Equipment Solo Exhibit. Caracas. June 24-28. Venezuelan Government health care programs are receiving vigorous impetus in the form of new hospital construction and expansion of public health service activities designed to considerably broaden the range of medical services available to the public. In addition, stricter regulation of public and private health facilities will create an immediate demand for the whole spectrum of biomedical products. Equipment purchased by the government and private entities is expected to run from $20-30 million in 1975 alone. Vicky Eicher, 202-967-4546.

U.S. Metalworking and Metal Finishing Equipment. Sydney Trade Center. July 7-11. Australian imports of metalworking equipment are forecast to double from $73 million in 1972 to $146 million in 1978. Two-thirds of the metalworking equipment used in Australia is imported and this trend is expected to continue. U.S. equipment is much more price competitive than in previous years, especially against German competition. Also, English exporters are losing tariff preferences. Bob Kelly, 202-967-2425.

Shipbuilding & Ship Repair Equipment Exhibition. U.S. Regional Trade Center, Singapore. July 22-25. The timing is appropriate for U.S. initiatives on an expanded scale to sell marine equipment in this market. In 1973, this industry netted total revenue of about US$202 million, up from $16 million in 1965. It is the largest single employer in Singapore, after the government, with a workforce of 24,000 employed in some 50 registered shipyards. The business of ship repair and support of offshore oil activities should continue to expand and projections indicate that by 1980 revenue should top $302 million and employment 40,000. J. Lee Barnes, 202-967-3893.

Ocean, Marine Instrumentation Exhibition. U.S. Trade Center, Tokyo. Aug. 4-8. Japan's small size and the virtual absence of exportable deposits of natural resources have caused the Japanese to expend considerable resources in investigating potential of the ocean. The current Japanese budget for ocean research and development totals $99 million. The private sector is expected to commit approximately $127.7 billion between 1970-80. Particular attention is being directed toward offshore oil and natural gas exploration. Bob Watkins. 202-967-2461.

COMPUTECH '75—Computers and Related Equipment Exhibition. U.S. Trade Center, Taipei. Aug. 18-22. Between 1975 and 1977 Taiwan's consumption of computers and related equipment is expected to grow at a rate of 25 percent per year. Taiwan, with an ambitious development program, is expected to import annually computers and equipment valued at $14 million. This exhibition, including seminar presentations by participants, is being held at the same time as the 4th International Computer Symposium for East Asia in Taipei. The exhibition will be limited to 20 U.S. firms. Call Harry Stringer, 202-967-5200.

Business Equipment, INTERORGTEKHNIKA-75, International Exhibition. Moscow. Sept. 2-16. Soviet imports of business equipment from the industrialized West have tripled since 1967 and are expected to increase another 66 percent by 1977. Soviet specialists regard the U.S. as the world's foremost producer of modern business equipment. Jim Robb, 202-967-4810.

Food and Tobacco Processing. International Fair, Plovdiv, Bulgaria. Sept. 3-10. Agriculture accounts for 25 percent of the Bulgarian GNP and over 30 percent of exports. During the next year Bulgaria intends to spend $220 million in modernization and expansion of plants and facilities, and is anxious to use American technology and equipment to help improve output and efficiency. Cooperation with foreign firms is now possible and encouraged. Joseph Eblan, 202-967-5163.

Process Controls and Material Test Equipment. International Fair, Brno, Czechoslovakia. Sept. 10-18. Czechoslovakia is one of the most industrialized countries of Eastern Europe and presents a large market for controls and test equipment, especially in the chemical, textile and food processing industries. The Brno Engineering Fair is one of the largest in Eastern Europe, with annual attendance of over 400,000. Buyers from all of the COMECON countries typically attend this event. Jim Bushery, 202-967-5163.

Instruments and Controls for Science and Industry. U.S. Trade Center, Tehran. Sept. 14-18. The current national Development Plan projects about $22 billion in investment for instrument and control related fields from 1973-78. Iran's foreign exchange earnings are expected to reach $18 billion, while imports jump to $10 billion in 1974-75. The instrument and control market is expected to multiply more than 2½ times by 1978, to $168 million. The U.S. share of imports of instruments and controls, around 19 percent, is a close second to West Germany. Karl Reiner, 202-967-4652.

Fluid Power Exhibition, U.S. Trade Center, Milan. Sept. 23-27. U.S. products dominate the Italian market in high technology hydraulic equipment, especially that needed for applications requiring pressure of over 2,000 P.S.I. The squeeze on profit margins and high labor costs have further stimulated interest among Italian firms and the market is expected to exceed $200 million by 1976, of which $60 million will be imported. U.S. products with high sales potential include hydraulic pumps, motors and valves, servosystems, gauges and indicators, pressure transducers and rotary compressors. John Priamou, 202-967-2434.

Agriculture, Water and Food Equipment, AGWA-FOOD International Trade Fair. Tehran. Oct. 31-Nov. 6. Iran continues to be one of the fastest growing markets for U.S. exports in the world. Our exports almost tripled last year to a total of $1.7 billion. In the Iranian Fifth Plan, 1973-78, agricultural development has been assigned key priority. More than $4 billion will be invested in means to produce, process, transport and market foodstuffs. Particular emphasis will be given to increasing the area under irrigation, increasing silo capacity, expanding red meat and milk production and increasing farm productivity by formation of larger farm units through cooperatives and agribusiness enterprises. The Iranians are determined to translate their agricultural plan objectives into reality. This offers outstanding export sales opportunities to U.S. manufacturers. William S. Gaines, 202-967-4441.

LIVELY BETWEEN-SHOWS USE OF U.S. TRADE CENTER IN PARIS—*U.S. Trade Centers abroad are available for use by American firms and their distributors between scheduled exhibitions. An example is the Burroughs display in Paris that drew 1,750 trade visitors and $800,000 in business in five days, including a computer sale to an Ivory Coast firm.*

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

2095—SENEGAL—Firm wants to establish 3,000-metric-ton **freeze-dry coffee plant.** Contact is sought with U.S. firms which could offer turnkey proposals and secure U.S. equity participants. Plant would be in Dakar's tax and duty free industrial zone. Maissa Seye Tall, Senegalese Consulting Engineer, BP 2428, Dakar. P-75110. OPIC.

2400—MALAYSIA—State of Pahang is undertaking integrated development of 2.5 million acres of virgin forests. Seeks U.S. participation in **joint venture to develop 480 to 600 sq. mi. fresh water peat swamp forests** immediately south of Pahang river. Forest inventory indicates 24 species considered commercial; suitable for furniture, plywood, parquet flooring, construction and boat building. Some species contain extra long fibers suitable for pulping. U.S. partner would provide expertise to operate complex for specific time period, train Malaysian staff and market output. Project proposal calls for establishment of integrated timber harvesting and manufacturing operation. Initially, will include component furniture and molding facility. Director, Pahang Tenggara Development Authority (DARA), 399 Jalan Telok Sisek, Kuantan, Pahang, Malaysia. P-75111. OPIC. Copy of correspondence to Federal Industrial Development Authority (FIDA), P.O. Box 618, Kuala Lumpur 01-02.

2621—SAUDI ARABIA—Prominent business group seeks joint venture to manufacture **kraft paper.** Project would involve U.S. participation in preparation of feasibility study, design and construction of plant on turnkey basis and technical know-how in producing kraft from waste paper. Saudi group is willing to negotiate terms of collaboration, including amount of American capital investment and equity. Plant will be located in Dammam. One member of group is partner in large paper converting operation. A. A. Al Moaibid, P.O. Box 538, Dammam. P-75127.

2650—GERMANY—Seeks licenses for **novel types of packaging methods involving use of paper, paperboard, metal and plastic foils and combinations of these materials.** Presently, firm produces folding cartons used primarily by food processors and manufacturers of electrical appliances. Company wants to diversify its production and is prepared to invest in new equipment. Ms. Ingeborg Wahlbrink, Friedrich Freund o.HG., Iburgerstr. 31-33, Postfach 2027, 45 Osnabrueck. P-75112.

2844—GERMANY—Seeks licenses to produce complete line of quality, name brand **men's cosmetics,** also **baby lotions and powders** for distribution to boutiques, beauty salons and similar institutions. Established in 1956, firm makes and markets cosmetics, employs 180, and has annual sales estimated at $7.2 million. Roger Schaefer, Alfred Heyn GmbH, 1 Berlin 10, Salzufer 9-10. WTDR. P-75128.

3069—PHILIPPINES—Established manufacturer of **industrial rubber products** seeks to enter into joint venture and/or licensing arrangement with U.S. manufacturer of molded rubber products for industrial machinery, especially rubber linings for steel tanks, pipes, ducts and chutes. Primarily interested in acquiring technology for improving quality of its existing range of products. Firm which employs 140 workers produces rubber linings, rubber rollers, rubber replacement parts for motorcycle trade, molded products for automotive industry, and range of rubber molded products for industrial equipment. Manager of firm will be in U.S. for about three months beginning in March. Lorenzo Salvador, Manager, Gulf Rubber Corp., Manila South Road, Pamplona, Las Pinas, Rizal, Philippines. WTDR. P-75113. OPIC.

3357—PAKISTAN—Pakistani Telegraph & Telephone Department has prepared specifications for establishment of **telephone cable plant.** Facility will be near Karachi. Estimated cost is $5.4 million. Project is to be implemented in three years either as joint venture or 100 percent foreign equity investment. No deadline has been set for submission of proposal. Mohammad Aslam, Deputy Director General (Planning), Pakistan Telegraph & Telephone Department, Islamabad. P-75129. OPIC. Copy of specifications is available on loan from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20203.

3452—ECUADOR—Firm wishes to enter joint venture with U.S. firm to establish factory for production of **steel bolts, nuts and washers for general use, using both hot and cold processes.** Bolt sizes planned are ¼", 5/16", 3/8", 7/16", ½" with maximum length of 5". Above sizes will be produced in hexagonal, square, carriage A and other types. Metric-threaded bolts also will be included. Hopes to enter production in early 1976. U.S. firm expected to provide for purchase of necessary machinery and technology and train personnel. Acquisition cost of machinery alone estimated at $600,000. Write Dr. Gerolamo Zanchi, Gerente General, Metalmecanica San Bartolo S.A., P.O. Box 5204, Quito. WTDR. P-75114.

3494, 3149—SWEDEN—Small firm seeks licenses from interested American firms for manufacture of **valve fittings for pumps used in inflating soccer balls,** and other similar sports equipment such as basketballs, small rubber rafts. Firm also seeks licenses for manufacture of **detachable cleats** such as used in track shoes. Company presently manufactures bicycle locks and is equipped to manufacture lightweight metal products such as described above. Lennart Ullman, Director, AB IVA Mekaniska, P.O. Box 2033, S-331 02 Varnamo 2. WTDR. P-75115.

3523—GERMANY—Firm seeks licensing arrangement to manufacture **automatic hog feeding equipment applicable to liquids.** Firm specializes in manufacture of automatic dry feeding equipment in hog raising. Also makes silos, poultry cages, and stable equipment. Established in 1932, company has 46 employees. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-75116.

3523—GREECE—Manufacturer of agricultural machinery desires collaboration with American firm for production of **modern U.S. agricultural equipment.** Firm was established in 1926, presently specializes in baling and collection machinery, grain sowing machinery, fertilizer distributors, vegetable planning machinery, hydraulic multi-disc and disc harrows, and cotton, corn, sugar beet, bean and nut seeding equipment. Imports discs, bearings, sprocket chains and gear boxes. New plant will be at Agios Athanasios, outside Thessaloniki, to produce aforementioned and related equipment. Hopes to increase exports and is interested in variety of arrangements, including licensing agreements, contracts for technical advisors or joint ventures. Apostolos Psaltides, General Director, Socratis Psaltides & Son S.A., 87 Monastiriou St. (N. Kordelio), Thessaloniki. Telephone, 031-763-822-3 and 031-510-522. P-75117. OPIC.

3523, 3531—PORTUGAL — Industry and Energy Secretariat of Ministry of Economy has announced a public tender for concession to construct and operate **tractor factory** in Portugal. It is open to any national or foreign firm, either individually or in consortia. Basic requirements: factory must have annual production of 6,000 tractors ranging in size from 27 to 56 hp. and minimum original national value added must be at least 30 percent of production cost of each unit. National value added must increase to 60 percent after three years of operation. Proposals must be submitted to Directorate General of Industrial Services, Secretariat of Industry and Energy, Lisbon, within 180 days. Further details available from Directorate General. P-75135.

3531—GERMANY—Manufacturer of **road construction equipment** seeks licenses. Wants to produce **storage bins, conveyor belts and screening equipment used in building bituminous roads.** Interested in newly developed equipment. Kurt Wasmus, Owner/Manager, Wasmus Maschinenbaugesellschaft mbH, Postfach 109, 4521 Melle-Drantum. P-75132.

3552—INDIA—Textile equipment manufacturer seeks license to produce **ring spinning and open end spinning frames.** Firm plans to expand its product line and be in a position to supply complete range of textile equipment for cotton spinning mills. Company makes carding engines, speed frames, crossroll carding engines and draw frames, believes there will be growing demand for spinning frames because the number of cotton spinning mills is expected to increase. Representative of firm plans to visit U.S. in April to discuss licensing agreements. J. Gupta, Chief Executive, Machinery Manufacturers Corp. Ltd., P61B Circular Garden Reach Road, Calcutta 700043. Cable address: CARDING; Telex, MMC, CAL 3547. P-75118. OPIC. Details including machinery specifications available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230.

3554—BELGIUM—Firm specializing in supply of spare parts and production of machinery for paper and cardboard industries wants to diversify. Seeks **joint venture to manufacture wider range of products.** U.S. participant is offered equity interest in return for technical and financial assistance. Belgium company markets its products in EEC and other countries. Operates well equipped plant, room for expansion. Belgian Consulate General, Industrial Section, 50 Rockefeller Plaza, New York 10020. P-75119.

3559—AUSTRIA—Seeks license to produce **reverse osmosis water purification systems.** Firm is a leader in water conditioners for domestic and industrial use. Also active in waste water reclamation. Exports to countries in Europe, Asia, and Africa. Dr. Josef Dobias, Chief Chemical Engineer, Bran & Luebbe Wasseraufbereitungstechnik GmbH, Muenchner Bundesstrasse 192, A-5020 Salzburg. P-75130. U.S. firms may wish to send copies of correspondence to U.S. Embassy, 1X Boltzmanngasse 16, A-1091, Vienna.

3559—THE NETHERLANDS — Manufacturer of **machinery up to 15 tons for chemical and petrochemical industries** seeks license or joint venture. Wants to make equipment within its range of capabilities. Particularly **interested in producing parts used in North Sea drilling activities.** Firm manufactures products made to customers' specifications and to almost any standard, material code and thread cutting. Established in 1921, employs 100. A. Spaapen, Machinefabriek den Holder B.V., 12 Rooseveltstratt, Leiden, Netherlands. P-75136.

3569—GERMANY—Seeks licenses for **mixing, kneading and packaging of plastic putty.** Firm produces and markets, mainly in Germany, plastic putties. Founded in 1925, it employs 30, has 8 agents; is member of group of firms which also make cleaning and polishing substances. Bernd Pieper, Thuermer Kittfabrik, Postfach 4165, 45 Osnabrueck. P-75131.

3576—UNITED KINGDOM—Seeks to manufacture U.S. **weighing machines** under license in U.K., preferably on reciprocal arrangement. Registered in 1962 to continue doing business started in 1844. Firm is manufacturer, distributor, exporter and importer of commercial, industrial and domestic weighing machines. Also manufactures and exports moisture analysers. E. T. Scriven, Managing Director, C. Stevens & Sons (Weighing Machines) Ltd., 287/289 Goswell Road, London EC-V 7 LD. Telephone: 01-837-8173. P-75120.

3579—SWITZERLAND—One of Europe's leading manufacturers of automatic franking machines wants to diversify its manufacturing and sales program. Seeks licenses to manufacture any **types of machines used in handling and dispatch of mail at company (office) level.** Of special interest are **folding machines, addressing machines,** and **envelope stuffing and sealing machines.** In addition to its Swiss plant, company has retail outlets, subsidiaries in Germany and Netherlands and representatives in most other European countries. It also has excellent contacts with official Swiss postal agency from which it recently received substantial R&D order. Excellent reputation and financial standing. Werner Haug, General Manager, FRAMA, AG, 3438 Lauperswil. P-75121.

3585, 3679—ISRAEL—Seeks license or similar agreement to manufacture **room air-conditioning units.** Also wants to assemble **printed circuits, electronic tuners, cable forms and all kinds of coils.** Is equipped with modern machinery, tools, and test equipment. Company is prepared to purchase any equipment necessary for manufacture of these products. Presently, firm makes television and audio equipment; imports electrical and electronic consumer goods. Employs 275 including 20 salesmen. Representative of company is willing to visit U.S. for discussions with interested firms. I. Rosenbaum, Assistant Managing Director, Pilot Radio (Israel) Ltd., 19 Hatsfira St., POB 28085, Tel Aviv. P-75133. OPIC.

3613—GERMANY—Seeks license to produce **switches and connectors** used in manufacture of electric and electronic consumer products. Established in 1876, firm employs 500. Has sound reputation. Schaeffer-Homberg GmbH, 56 Wuppertal 2, Schuetzenstr. 23. P-75122.

3662—JAPAN—Seeks license to manufacture **alarms for detecting liquefied natural gas (LNG) leaks in households.** About 18 million homes are now utilizing LNG for cooking and heating and number of household explosions is increasing. Reportedly, Japanese Government is considering mandatory installation of detection alarms by LNG users. Firm is a leading manufacturer of electrical insulating materials, electronic parts, industrial tapes and other products. It employs 2,000; reports annual sales of $150 million. Company has ample plant space as well as sufficient financial and personnel resources for expansion. Y. Ogawa, Manager, Product Planning Department, Nitto Electrical Industrial Co., Ltd., 1-7, Uchi-Kanda 1-chome, Chiyoda-ku, Tokyo 101. WTDR. P-75123.

3811—UNITED KINGDOM—Seeks licensing arrangement for production of **scientific instruments.** Established in 1972, presently manufactures and markets scientific instruments to universities, hospitals and industrial laboratories. A. J. Stafford, Managing Director, Life Science Laboratories Ltd., Sarum Road, Leagrave, Luton, Bedfordshire, England. Telephone: Luton 597676. P-75124.

3949—GERMANY—Seeks licensing and/or joint venture arrangement with U.S. company to produce **archery equipment.** Manufactures sporting articles, including archery equipment, garden games, sporting nets, table tennis sets, gymnastic articles, children's swings. Rathgeber GmbH, 3511 Speele, Postfach 5. P-75125.

Thailand Invites Investors To Apply For Production Of Chemical Fertilizers

The Thai Government's Board of Investment (BOI) issued an announcement on Jan. 28 inviting investors interested in chemical fertilizer production to apply for promotional privileges Jan. 28-July 31. Minimum production capacity is to be 200,000 metric tons annually and quality and pricing of products must be approved by BOI. The type of chemical content of the fertilizers is not specified, and BOI will consider proposals on their individual merits. Only one application will be selected and approved from promotional privileges.

Additional BOI requirements include the following: Applicants must present a bank guarantee of 5 million baht (about $250,000) and a feasibility study on the project; applicant must be registered in Thailand with capital of not less than 100 million baht (about $5 million) to be fully paid before production begins: production processes must be aproved by BOI; applicant selected must begin production within 2 years after receiving BOI's promotion certificate.

For additional information and application forms contact Somphon Bunyakhup, Secretary General, Board of Investment, Rajdamnern Ave., Bangkok, Thailand. P-75126. OPIC insurance and financing programs are operating in Thailand.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248) referring to appropriate file number.

AUSTRIA—U.S. licensee to produce **chocolate confectionery, hollow figures, wafers, and similar items** is sought by Austrian firm, one of largest of its kind in Austria. **File 2673**

BAHAMAS—U.S. licensee for manufacture of **fresh water production system** is sought by Bahamian firm. Patented in over 40 countries, this system produces potable water at minimum cost and with few employees through collection of rainwater. **File 2674**

GERMANY—German firm that has long specialized in gas heating seeks U.S. licensee to manufacture its **gas-fired boilers.** Designed particularly for hot water gas heating systems, these boilers feature convertible burners of low noise level and are appropriate mainly for use in commercial and industrial buildings. **File 2675**

GERMANY — German inventor wishes to license production in U.S. of **insert for drums used to dry agricultural products and chemicals.** Special design of this insert prevents substances from lumping or sticking to compartment walls. **File 2676**

GERMANY—Engineering and business consultant company wishes to grant license to U.S. manufacturer for its newly developed continuous method of **reclaiming scrap rubber without steam pressure, mashing, or drying.** Under this thoroughly tested recycling process, reclaimed materials such as butyl tires, automobile and truck tire treads, and latex foam rubber are reportedly equal in quality to those of other system. **File 2677**

SWEDEN—Offer to license production of a **bicycle lock** has been made by Swedish firm. Galvanized steel lock is unique in that it remains attached at all times to frame, even when bicycle is in use. **File 2678**

SWITZERLAND — Small, specialized Swiss manufacturer of electronic items, mainly for industrial process controls, wishes to license production in U.S. of its **electronic control units** for automatic regulation of single-, two-, and three-phase AC motors. These units, made entirely from integrated circuitry, can provide variable regulation up to full speed by maintaining constant torque. **File 2679**

SWITZERLAND—License for **new building material,** as well as **related manufacturing techniques and equipment,** is offered by Swiss company. This unique ceramic material, obtained by a thermochemical combustion process based on welding together of expanded clay pellets, requires no binders or fillers. **File 2680**

SWITZERLAND—Prominent Swiss manufacturer of food processing, materials handling, and plastics working machinery wishes to license production in U.S. of its advanced plastic and structural foam **injection molding machines.** These machines are equipped with latest computerized monitoring and control systems. **File 2681**

UNITED KINGDOM—British inventor offers license for production in U.S. of his **self-priming, steam-actuated water pump.** Fueled by propane flame, paraffin pressure flame, or any other source of high-intensity heat, pump has no mechanical impeller and thus is cheap to manufacture, easy to maintain. **File 2682**

Foreign Trade Inquiries

These trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Construction

● **16100—MOROCCO**—Tender for 80 kilometers of road paving or repair within framework of Sebou River Project. Tender Identification is "Project Sebou (P.T.I.), Lot No. 2." Financed by World Bank. Copies of call for bids and bidding file may be obtained, free, from Moroccan Embassies and/or from Monsieur Le Directeur des Routes, Ministere des Travaux Publics et des Communications, Rabat, Maroc. Bids must arrive by March 31. Correspondence in French.

Broad woven fabric mills, cotton

22115XX, 22214XX—BAHAMAS—Material suitable for making surgical gowns for hospital use. Quote prices of both plain and cotton polyester mixture in both green and white material. Quote prices per yard and per bolt of material. Abilities Unlimited is a newly formed non-profit company employing and rehabilitating handicapped people, who, it is hoped, will make the material into surgical gowns, etc., for hospital use and sell to local hospitals and medical center. Company is desperately awaiting replies from manufacturers. Reply ASAP to—Captain John Fisk, Pres., Abilities Unlimited, P.O. Box N-3938, Nassau. Telephone 809-325-4332.

Logging camps, logging contractors

● **24100—IRAN** — Iranian State Railways requests bids on 5,000 pieces of treated wooden timbers of 11 meters in length with head diameter approximately 15 centimeters. Bid deadline March 16. Official documents for tender number 2324/53 available from Purchasing Department, Iranian State Railways, Tehran, by submitting bank receipt of 300 rials to the Iran State Railway account number 1039 in the Markazi Bank, Iran. Copy of documents is available from the Construction and Forest Products Division, Department of Commerce, Washington, D.C. 20230, 202-967-2606.

Industrial chemicals

● **28190—PERU**—108,000 metric tons of 98.5 percent sulfuric acid, to be delivered 54,000 metric tons in 1976 and 54,000 metric tons in 1977. Quotes should be C & F Port of Matarani, in Southern Peru. Bidders should arrange appropriate transportation to deliver approximately every 30 days. Warehousing capacity is 6 000 metric tons and daily consumption 150 metric tons. No tender number. Bids should be submitted as soon as possible to L. G. Vasquez, Manager, Gerencia Logistica, Minero Peru, Casilla 4332, Lima 1.

Leather tanning, finishing and footwear, except rubber

● **31100, 31400 — BOLIVIA** — Feasibility study, technical, economical and financial, to develop shoe and tanning factory in Santa Cruz. Firm must adhere to Bolivian Consultants Code No. 10418 of Aug. 18, 1972, copy on file U.S. Department of Commerce. Bid deadline April 8. Specifications can be purchased in La Paz, Calle Loyayza, Edificio Castilla, 8th floor oficina No. 807, for $25. Reply to Secretaria General, Comite de Obras Publicas Santa Cruz, Casilla 218, Santa Cruz.

Steel mill products

● **33100—BURMA**—Various sizes and quantities of steel plate. Tender No. MEIC/BRC/15(T) 54(ML) 74-75; bid deadline March 14. Burma Railways Corporation, Rangoon. Specifications available from Iron and Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, 202-967-2438.

● **33100—ECUADOR**—30 kilometer length steel cable for use with electrical tensors; 630 kilometer length steel galvanized wire for use as core of ACSR cable to be stranded locally. Tender No. 24; bid deadline April 2. Empresa Electrica Cuenca C.A., P.O. Box 16, Cuenca, Ecuador. Correspondence in Spanish. Specifications available for $12 at above address.

Iron, steel foundries

● **33200—INDIA** — 10,600 heat resistance steel castings for super heater coils. Tender No. SP:3140089E; bid deadline extended to May 20. Tender documents available from Bharat Heavy Electricals, Ltd., Tiruchirapalli, 620014.

Rolling, drawing, extruding of nonferrous metals

● **33570—THAILAND** — Telephone Organization of Thailand, Ploenchit Rd., Bangkok, has issued tender no. TOT B-10 for various types of sheathed cable. Bid deadline April 8. Copies of specifications available from above address for $100.

Fabricated metal products

3499471 — JAPAN — Metal aerosol valves; Est. annual purchase $200,000. Reply to—Susumu Tanaka, Sales Mgr., Nankai Trading Co., Ltd., Seiyu Bldg., 28 Awabori Dori 2-Chome, Nishi Ku, Osaka 550. Cable Nankai-head; tel. 06-532-3191; telex J63547.

Engines, turbines

● **35100—ZAMBIA**—Supply and installation of one diesel 500 kva generator set. Tender No. MF/GPO/178, bid deadline March 15. Secretary, Central Supply and Tender Board, P.O. Box 1009, Lusaka. Tender documents available from Transportation and Capital Equipment Division, BDC, Room 2814A, U.S. Department of Commerce, Washington, D.C. 20230, 202-967-5652.

Metalworking machinery

● **35400—INDIA**—Portable gas cutting machines. Tender No. 106/18/363/6.1.75, bid deadline March 15. Directorate General of Supplies and Disposals, Jeevan Tara Bldg., Parliament St., New Delhi 110001. Tender documents available from India Supply Mission, 2536 Mass. Ave., NW., Washington, D.C. 20008, for $2.75 per copy.

Other special industry machinery

● **3559589—TURKEY** — Government seeks proposals for construction of serum factory with annual capacity of 100,000 litres 0.9% serum physiologic and 525,000 litre capacity 5% serum dextrose. Annual capacity to be 750,000 of 500 cc. bottles and 250,000 of 1,000 cc. bottles. Bottles to be procured locally. Interested firms requested to write giving technological data, completion times, etc., to Directorate General, Sosyal Sigortalar Kurumu General Mudurlugu (Social Insurance Association) Ankara.

General industrial machinery

● **35610—COLOMBIA**—Supply of 4 centrifugal pumps, with divided case to be placed at El Sapo Water Treatment Plant, part of the Chingaza project. Bid deadline April 21. Specifications available for 1,000 pesos ($35) first copy and 250 pesos ($9) each additional copy from: Direccion de Plan Maestro de Acueducto, Empresa de Acueducto & Alcantarillado de Bogota D.E., Calle 22C No. 40-99, of 201, Bogota. Ref: Licitation International Numero 354-POAII-14.

● **35690—INDIA** — The Purchase Department, National Coal Development Corp., Ltd. (A subsidiary of the CMAL), Darbhanga House, Ranchi-834001, Bihar, has issued Tender No. VOSP/S-IV/1041-R/74 for supply of horizontal type centrifuge for drying washed coal and middlings, complete with motor and accessories. Bid deadline March 19. Copies of specifications available from above address for $2.70.

Electric transmission, distribution

● **36110—INDIA** — Bharat Earth Movers Ltd. (a Govt. of India Enterprise). BEML Nagar Post, Kolar Gold Fields—563 115, Karnataka, has issued Tender No. EB/323300/11/11-75 for measuring instruments. Bid deadline March 31. Copy of specifications available from India Supply Mission, 2536 Mass. Ave., NW., Washington, D.C. 20008.

● **36110—IRAN** — The Telecommunications

Co. of Iran (TCI), Kourosh Kabir Ave., Bisim Pahlavi, Tehran, has issued Tender No. 53/98 for supply of 1,080 sets testing receivers with dial plate and cases, meggers, and portable cable measuring sets with galvanometers for locating faults in cables. Bid deadline March 16. Copies of specifications available on deposit of $15 at above address.

Household appliances

• **36300—IRAN**—Electric wall fans: 1,200 units 110-145 v.,dc; 400 units 24-29 v.,dc. Bid deadline April 5. Tender No. 1547, 1630/53. Iranian State Railways, Tehran; cable RAHAN. Specifications available from ISR (rials 200) or from Iranian Economic Mission, 5530 Wisconsin Ave., NW., Washington, D.C. 20015.

Communications equipment

• **36620—CAMEROON**—Direction Generale de la Regie des Chemins de Fer du Ameroun, B.P. 304, Douala, has requested bids for supply of radio transmitting and receiving equipment. Bid deadline April 30. Bid should offer transceivers with possible duplex and remote control capability, 75 portable self-contained transceivers, multi-channel and push-to-talk transmission at local remote control stations, local radio network, and rechargeable rectifier. Copy of specifications available from above address for $17 or may be reviewed at the Cameroon Embassy, 2349 Mass. Ave., NW., Washington, D.C.

• **36620—EL SALVADOR**—Harza Engineering Co., 150 South Wacker Dr., Chicago, Illinois 60606, has issued tender CEL: No. 449 for design, supply and installation of a microwave communications system, consisting of 15 terminals and repeaters, for the government's Hydroelectric Commission. System should operate in 2GHZ frequency range, with full synchronous and phase locked voice and data multiplex equipment with ultimate capacity of 300, 4 KHZ duplex channels of data loading. Interested firms invited to send qualification information to above address as soon as possible. Qualification forms available to firms located in U.S. from Science and Electronics Div., BDC-466, Room 1001, U.S. Dept. of Commerce, Washington, D.C. 20230, 202-967-2939.

• **36620—GUYANA** — Guyana Telecommunication Corporation, Telephone House, Brickdam, Georgetown, desires microphones with accessories for 20-100 delegates, 3-6 interpretors. Interested firms should send technical literature, budgetary quotations and delivery date. System quoted should also cover control unit, chairman's microphone with switching capability and accessories.

• **36620—IRAN** — Telecommunications Co. of Iran, Avenue Kourosh Kabir, Bisim Pahlavi, Secretariat of Purchasing Div., Tehran, has issued Tender No. 53/116 for supply of 10 HF/SSB receivers. Bid deadline April 5. Copy of questionnaire forms available from above address.

• **36620—IRAN** — Telecommunications Co. of Iran, Avenue Kourosh Kabir, Bisim Pahlavi, Secretariat of Purchasing Div., Tehran, has issued Tender No. 55/38 for supply and installation of a mobile radio telephone system in Tehran. Interested firms must register with the Telecommunications Company of Iran by March 18 to bid.

Engineering, laboratory, scientific research instruments

• **38110—AUSTRALIA**—The District Contract Board, Department of Manufacturing Industry, G.P.O. Box 1391, Brisbane, Queensland, 4001, is seeking a digital seismic recording system. System must be solid state, modular in construction, and capable of reliability under adverse field conditions. Copy of specifications available from above address or from the Australian Consulate General in New York City.

Instruments for measurement, analysis and control

• **38210—NEPAL** — The Water Supply & Sewerage Board, Tripureshwar Marg, Kathmandu, is seeking bids for supply of 8,000 water revenue meters ranging in size from 12 mm to 50 mm. Bid deadline March 16. Copy of specifications available from above address or from Engineering Science, Inc., 150 North Santa Anita Ave., Arcadia, Calif. 91006, for $19.05.

Manufacturing industries

3999999—LIBERIA—Jungle survival kits to be carried aboard light aircraft. Suppliers should send brochures, specs. & prices c.i.f. Monrovia. Buyer is semiautonomous govt. agency responsible for flying president, other high govt. officials. Also conducts training of civilian pilots. Reply to—Blaine D. Porter, Commercial Attache, American Embassy, APO New York 09155. Cable Amembassy Monrovia; phone 22991.

3999999 — GERMANY — Philatelist stamps. Firm founded in 1954, is leading philatelic dealer in northern Germany. Reply to—Walter Fellermann, W. & H. Fellermann OHG, Pagenstecherstr. 33., Postfach 1880, 45 Osnabrueck. Tel. 0541-64877. Direct sale for resale, also exclusive distributorship.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Broad woven fabric mills, manmade fiber, silk

2221781—SWEDEN—Silk fabrics to be used as lining in fur coats. Est. value $5,000. Inquirer is small co. with sound financial standing. Suitable trade contact. Reply to—Mr. Gunnar Nylander, A. B. Gunner Nylander, Box 18021, S-100 21 Stockholm.

Structural clay products

32530XX — GERMANY — Ceramic wall & floor tile, including mosaic tile, glazed & unglazed. Price quotations c.i.f. German seaport. Reply to—Franz Strodtkoetter, Mng. Partner, Hansa Baumarkt Franz Strodtkoetter KG, Industriestrasse, 4473 Haseluenne. Tel. 05961-5299. Excl. agency or dist.

Pottery, related products

3263012, 3269041—GERMANY — Earthenware/iron stone coffee services (sets), other tableware sets, old English traditional, other traditional patterns (in copper print decorations), low & medium priced, for mass retailing, open stock, prompt delivery important. Independent mfrs. sales agent representing U.K., French, Dutch & U.S. mfrs. of glassware, china, iron stone & silver hollow ware. Has good business reputation. Main customers are dept. store chains & specialty wholesalers. Annual sales of U.S. iron stone tableware may amount to $2.5-$3 million. Willing to purchase in large quantities within next few months. Seeks exclusive agency. Reply ASAP—Mrs. Hilde Kullen, Erik Kullen Handelsvertretungen (CHD), Zimmer 32/33, 5 Kiln 21—Deutz, Deutz-Milheimer Strasse 30, Musterhaus am Messekreisel. Tel. 883503; telex 873635.

General industrial machinery

3569961-0100—UNITED KINGDOM—Fire sprinkler equip. Contractors specializing in installation of sprinkler systems. Reply to—B. A. Barrows, Dir., Spreckley Fire Protection Ltd., Adams House, Dickerage Lane, New Malden KT3 3SG. Tel. 01-942-2411.

Electrical industrial apparatus

36293 — AUSTRIA — Power generating systems using solar energy (heating, electricity). Excl. agency arrangement for Austria & E. European countries. Also interested in licensing related technology for production in Austria. Documented offers requested. Reply to—E. S. Kaufmann, Dir. Allkommerz Import & Export Ges.M.B.H., Bauernmarkt 24, A-1010 Vienna. Tel: 636479.

Scrap & waste materials

50930XX—KOREA—Waste paper. Firm is distributor of industrial chemicals for paper industries, now desires to represent U.S. suppliers of waste paper. Firm's business volume past 12 months, totaled W20 million. Employs five. Reply to—Shin Hyun-Chung, President, Shinchang Industries, Ltd., C.P.O. Box 252, Seoul 100. Cable: Daidongnam, Seoul. Tel: 27-4357.

UNDP Considers Twenty Projects

Twelve developing countries and regions have submitted 20 preliminary requests for financial and technological assistance from the United Nations Development Program (UNDP). These requests have not been funded nor have executing agencies been designated to implement them. They are made available to U.S. firms as potential projects on which future bid proposals may be requested, or as indications of the industrial and social plans of the requesting countries. U.S. firms are cautioned that these projects may not be approved for technical and/or other reasons.

Interested U.S. firms may obtain individual summaries of these projects from the Export Information Reference Room, Office of Export Development, Rm. 1063, Attn: Betty W. Patrick, U.S. Department of Commerce, Washington, D.C. 20230. Please include a pre-addressed label with your request, and identify each project summary desired by project number, country, and title. If the booklet, *UNDP Guide to Firms and Organizations*, would be useful, please so indicate.

AFG/72/009 — AFGHANISTAN — Malaria control program.

AFG/74/022 — AFGHANISTAN — Faculty of Veterinary Services, University of Kabul.

GHA/74/033 — GHANA — Assistance to GIHOC Pharmaceutical Division, phase II.

INS/72/005—INDONESIA—Planning and development of transmigration schemes.

INS/74/002 — INDONESIA — National consensus standards and quality control.

INS/74/035 — INDONESIA — Civil Aviation training.

IRQ/74/001 — IRAQ — Institute of Technology, Basrah, phase II.

JOR/73/010—JORDAN—Phosphate beneficiation pilot plant.

KMR/73/002 — KHMER REPUBLIC — Training of surveyor-engineers, Phnom Penh.

LAO/72/001 — LAOS — Training of civil servants.

LAO/74/002 — LAOS — Malaria control program.

LAO/74/007 — LAOS — Strengthening of the developing support communication system in Laos.

LAO/74/010 — LAOS — Integrated woodworking project.

NIR/74/001—NIGERIA — Improvement of fish processing and transport on Lake Chad.

PHI/74/015—PHILIPPINES — Pampanga Delta/Candaba Swamp area development.

PHI/74/016 — PHILIPPINES — Preparatory assistance to National Water Resources.

PHI/74/018—PHILIPPINES — Assistance in regional planning, phase I.

RAF/73/001 — REGIONAL (Africa) — Hydrometeorological survey of the catchments of Lakes Victoria, Kyoga and Albert.

RVN/74/021 — REPUBLIC OF VIETNAM—Poultry development, research and extension.

SUD/74/026 — SUDAN — Civil Aviation Training Institute, phase I.

Future Construction Abroad

NETHERLANDS—The Dutch Government intends to build **three 1,000 megawatt (MW) nuclear power plants** in Holland over the next ten years. Parliament must give approval before construction can begin. Industry experts are assuming that approval will be given for first plant in fall 1975, with construction commencing in 1976. Plans call for all to be in operation by 1985. Ministry of Economic Affairs announced that any firm hoping to receive a tender to bid must be able to demonstrate that a significant part of equipment will be manufactured in Holland. This policy, also true for conventional power plants, has effect of excluding new-to-market foreign firms from getting bids in domestic power generation business because there do not appear to be any Dutch firms capable of building such equipment not already tied up in licensing agreements or partnerships with a small group of old suppliers. In the nuclear area this has meant that for the last two plants, only two firms, General Electric (U.S.) and Siemens/Kraftwerk Union, received tenders. Ministry of Economic Affairs said, while in principle additional firms might be able to get into this latest competition, in practice they are excluded because of local manufacturing policy. Therefore, under present circumstances, it would be fruitless for new-to-market U.S. power plant suppliers to solicit bids. However, there should be significant opportunities for U.S. suppliers of specialized nuclear power plant components, such as valves, controls, pumps, etc.; contact the Dutch partners of G.E., Mr. F. Rehbach, Manager of Nuclear Engineering, Comprimo, James Wattstraat 79, Amsterdam; for Siemens/Kraftwerk Union Group: Mr. Overbeek Bloam, Stork Hengelo, P.O. Box 20, Hengelo, Netherlands.

COLOMBIA—The Colombian National Telecommunications Agency (TELECOM), Calle 23 No. 13-49 Piso 6, Bogota, D.E., is planning a **nationwide expansion of telephone service,** to cost U.S.$52 million. Estimated foreign exchange component is U.S.$33.5 million equivalent and Telecom has applied for a $15 million loan from World Bank. Project consists of installation of: about 18,000 additional lines of switching equipment, cables and subscriber plant, to connect about 16,000 additional subscribers; long distance equipment for about 5,400 additional circuits; telex equipment to connect 500 additional subscribers and call office telephone facilities in about 200 rural areas. Telecom will do engineering designs and, with assistance of tech consultants, will prepare bid documents and tech specifications, evaluate bids, and draw up contracts for goods. All goods provided under the project for World Bank financing will be procured through international competitive bidding, except extensions to existing exchanges, valued at U.S. $2.6 million, being obtained from contractor who supplied original equipment. Other imported goods to be financed by Telecom will be procured by negotiations with suppliers and competitive bidding. Telecom will lay all distribution cables and supervise construction of cabled ducts and buildings constructed by local contractors. All telephone and transmission equipment in new locations will be installed by suppliers with assistance of Telecom. Extensions to existing plant will be installed by Telecom, which will also carry out acceptance tests of all installed equipment.

SUDAN—Director of Civil Aviation, Al Sir Hassan Bashir, announced that the Government of Sudan would welcome comprehensive proposals for the **development of provincial airports** at Nyala, El Fasher, Gineina, El Obeid, Roseires, Gedaref, Kassala, Dongola and Meroe. Mr. Bashir stated that the need is not for consultants but for companies willing and able to draw up a flexible master plan and supervise its implementation by stages on a turnkey basis. The airports would not be elaborate, main initial requirement being capability of day or night handling of Boeing 707 and 737 aircraft. Proposals backed up with financing would have an advantage in competition. Excellent opportunity for companies interested in long-term involvement in Sudanese airport construction, estimate spending will exceed $150 million in next ten years. IBRD funding already authorized for studies on airports in Juba, Wau, Malakal and Port Sudan. Interested companies should arrange a visit to Sudan, if possible, or write Major General Awad Ahmed Khalifa, Commissioner General for Development, National Planning Commission, P.O. Box 2092, Khartoum.

IRAN—Dr. S. M. Kalantar, prominent local physician, plans to begin construction of a **200-bed hospital** this summer, funded via Government of Iran loan. Dr. Kalantar is not interested in a turnkey project but does wish to furnish with U.S. equipment. He is particularly interested in surgical, sterilization, intensive care, laboratory and radiological equipment. Dr. Kalantar would like to receive catalogs from interested U.S. suppliers. Send to American Consulate, Pahlavi St., APO New York 09205; they will forward to Dr. Kalantar. OPIC.

The Overseas Private Investment Corp. (OPIC) offers political risk insurance to U.S. construction firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's construction insurance program, write Information Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-1854.

PERU—Beneficencia Publica de Lima is planning to set up a U.S.$10 million **poultry feed plant** in Lima to produce about 500 tons of feed a day for own needs and local market. Interested in contacting U.S. firms specialized in supplying machinery and equipment for poultry feed manufacturing, including mills, mixers and pelletizers. Send informative materials, product literature, price lists, etc. to Sr. Efrain Rodriguez Figueroa, Gen. Mgr., Beneficencia Publica de Lima, Augusto N. Wiese 641, Lima 1.

TRINIDAD AND TOBAGO—The Central Tenders Board will soon invite tenders from prequalified firms to construct a **5½-mile divided highway** in Scarborough, Tobago. Prequalification questionnaires are available from the Project Coordinator, Ministry for Tobago Affairs, Works Division, Corner Main and Burnett Streets, Scarborough, Tobago, West Indies, (telephone 639-2422). Deadline for submission of prequalification questionnaires is April 17.

GREECE—Firms interested in bidding on construction of an **outlet drainage and road network** in the Tyrnavos area of East Thessaly (Gianannoulis-Abelonos Sector) can obtain a copy of the tender documents free of charge from Ministry of Agriculture, Land Reclamation Service, 22 Menandrou St., Athens. Bid deadline is April 17.

ALGERIA—The Algerian State Corporation, Sonelec, is seeking prequalification offers for turnkey construction of a **facility to produce telephone cables, including an integrated wire-drawing plant,** with a capacity of 15,000 metric tons/year. Involves provision of technical assistance, training of personnel and technicians, financing, civil works (offices, hangars, medical and social quarters, restaurants, garages, fire security facilities and buildings). Variations on specifications acceptable. Offers should be in French (10 copies) and English and include professional references. Firms should communicate interest as soon as possible before sending a definitive offer: Direction du Developpement et de la Planification, Sonelec, 4-6, Boulevarde V, P.O. 371, Algeri RP, Algiers; cable: Sonelec Alger; telex: 52867. Deadline is March 31.

MALAWI—Firms interested in tendering for **construction of a 150,000 ton per annum bleached kraft pulp mill** at Chintheche in Northern Malawi are invited to express interest to General Manager, Jaakko Poyry Consulting, P.O. Box 55, Sidcup, Kent, DA14 6PQ, U.K. tel. 01-302-6161, telex 896180 JPLONCON, SIDCUP with a copy to the Viphya Pulp and Paper Corp., P.O. Box 1252, Blantyre, Malawi. Estimated value of civil works $20 million. Bid submission by March 31. Tenders for construction of a new harbor at the mill site as well as a 74 km. highway from the plantations to the mill will be issued in near future.

VENEZUELA—Ministry of Public Works invites hospital construction firms and companies capable of supplying hospital equipment with interest in participating in the **1975-79 joint Public Works/Social Security Institute hospital construction program** to register. While the announcement does not specifically mention foreign firms and thus is limited to local distributors and agents, U.S. suppliers should instruct their agents of this forthcoming program, which consists of seven general hospitals with 200 beds each and two with 100 beds, and construction of 11 ambulatory centers.

ECUADOR—The Ecuadorean Ministry of Finance is seeking means of financing development of the **Port of Esmeraldas.** Nearly US$21 million will be spent during the next two years. Interested firms may write to: Director, Autoridad Portuaria de Esmeraldas, Esmeraldas, Ecuador.

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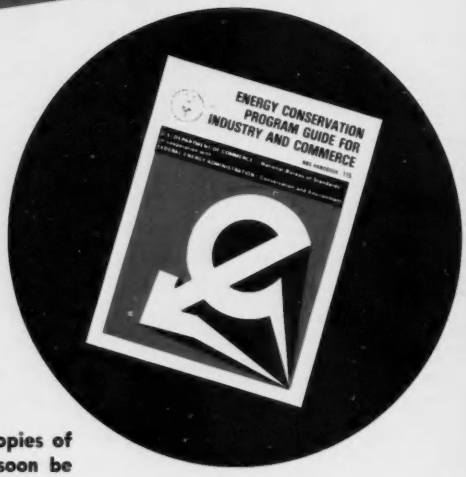

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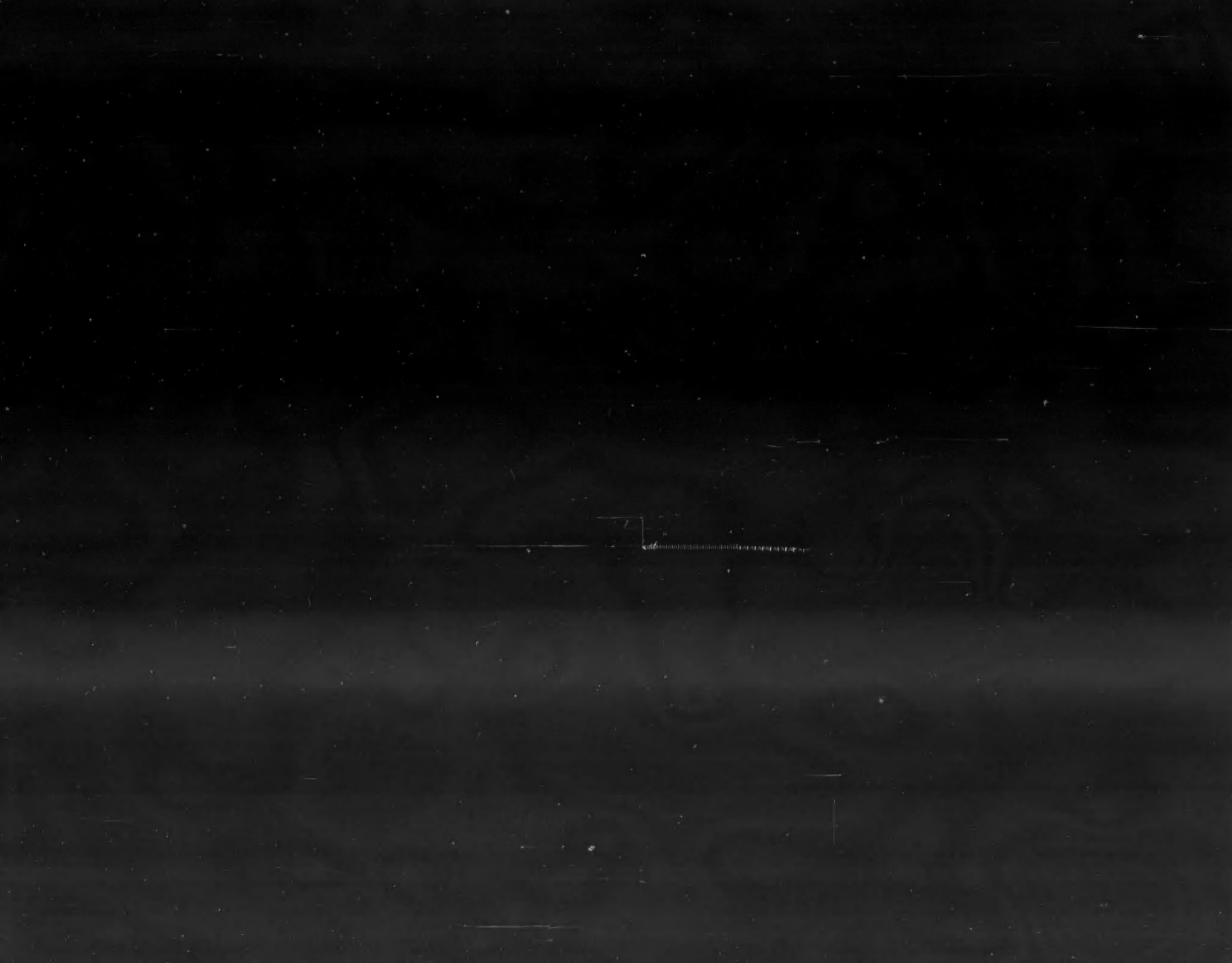
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